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USSR Report

CONSTRUCTION AND EQUIPMENT

No. 11

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CONSTRUCTION

RURAL CONSTRUCTION IN RSFSR DISCUSSED

Raising Effectiveness of Construction

Moscow EKONOMICHESKAYA GAZETA in Russian No 10, 1980 p 19

[Article by A. Nadezhdin, senior economist in the Administration for Extending Credit to Kolkhozes, Russian Republic Office of Gosbank: "Fruits of Resource Dispersion"]

[Text] Just as in other union republics, the volumes of capital investments are increasing from year to year at kolkhozes in the Russian Federation. New production facilities and various projects of a cultural-domestic nature are being introduced into operations. However, the effectiveness of the resources being expended remains low in a number of instances. The chief reason for this -- excessive dispersion of these resources among many construction projects. As a result, the plans for capital investments more often than not are over-fulfilled, while the plans for placing projects in operation remain unfulfilled. This applies in particular to farms in Vladimirskaya, Gor'kovskaya, Kirovskaya and Ul'yanovskaya oblasts and also in the Tatar ASSR.

The unsatisfactory status of kolkhoz construction is explained to a considerable degree by mistakes made during the course of planning the erection of projects. Analysis has shown that many kolkhozes, just as in the past and despite a large amount of unfinished work and limited material and financial resources, are channeling considerable resources towards the erection of an unjustifiably inflated number of construction projects. During 1979 and as an average for the republic, for every kolkhoz there were eight projects, with the annual expenditures for each of them being 40,000 rubles. In particular, resources were greatly dispersed at kolkhozes in Kostromskaya, Novosibirskaya and Kurganskaya oblasts, where an average of no more than 20,000-25,000 rubles was employed for each project.

The allocation of resources without taking into account the construction schedules leads to a situation wherein large projects are actually built over the course of 5-8 years, against a norm calling for a construction duration of 2-3 years. Thus, at the Rodina Kolkhoz in Abinskiy Rayon of Krasnodarskiy Kray, the modernization of a commodity dairy farm for 600 head is being carried out at an estimated cost of 1.8 million rubles by PMK-644 of Kraysel'stroy; this is the eighth year that such work has been in progress, against a norm calling for the work to be completed in 1 year. The planned period for completing the work has been extended three times.

Since 1975, a dairy farm has been under construction at the Kommunar Kolkhoz in Isaklinskiy Rayon of Kuybyshevskaya Oblast, at an estimated cost of almost 2 million rubles. Only 732,000 rubles worth of work was carried out during a period of 4 years.

In the plans for 1979, in many rayons, projects having overdue construction schedules were not adequately supplied with material and financial resources for their placement in operation. Thus, in Tul'skaya Oblast, of 938 projects carried over from previous years, for which the normative construction periods had expired, the plan called for only 709 projects to be placed in operation. The completion of the remaining projects was not planned owing to insufficient production capabilities on the part of the contractual organizations.

Incidents of construction starts taking place despite the absence of approved planning-estimates documentation are still occurring. Thus, the 1979 plan for RSFSR kolkhozes included 4,604 projects for which no planning-estimates documentation was available. It is established in existing normative documents that the technical plans for the construction of kolkhoz projects at an estimated cost of 3 million rubles or higher are approved by agreement with the RSFSR Ministry of Agriculture. However, we are still encountering incidents involving violations of this procedure.

At the present time, all problems concerned with developing the technical-economic justification for construction, selecting the projects and preparing the title lists are being resolved by the kolkhozes themselves. But at the same time, they are committing many mistakes. Thus, when developing the technical-economic justifications for animal husbandry facilities under construction, quite often the accounts for supplying them with feed are not composed, no provision is made for expanding the forage crop growing areas and the real sources for obtaining livestock are not taken into account. And this will result in a number of difficulties when the projects commence operations: decreased output, increased production costs and losses and delayed mastering of production capabilities.

During the construction process, incidents involving the wasteful expenditure of material and financial resources are often observed taking place. The contractual construction organizations change their original plans for variants involving the use of costly structures and large quantities of metal. This in turn raises the cost of the projects. For example, during the building of a complex for the maturing of 6,000 head of young cattle stock at the Kolkhoz imeni Komintern in Ostrogozhskiy Rayon in

Voronezhsakay Oblast, an interkolkhoz mobile mechanized column of the Oblmezhkolkhozstroyob"yedineniye substituted wooden stall frameworks, as called for in the plan, for cast iron ones. This reduced the cost of construction by 72,000 rubles.

Considerable resources were diverted for covering losses caused by the writing off of unproductive expenditures. For the most part, these arise as a result of a change in the production specialty of a farm during the course of construction, low quality carrying out of construction-installation work and shortcomings in planning-estimates documentation. According to data obtained from a sampling check carried out on the status of unfinished construction, in a number of rayons throughout the RSFSR there were 70 projects valued at 11.5 million rubles, for which there were unproductive expenditures amounting to 580,000 rubles.

The issuing of long term credit by Gosbank, now the principal financing means, is playing an important role in raising the effectiveness of construction in the rural areas. In a number of oblasts, expanded reproduction is being carried out completely by means of long term credit. However, we consider it advisable to expand the list of measures for which Gosbank makes long term credit available to kolkhozes and to have them conform with the requirements of the times. In particular, by no means are all of the oblasts and autonomous republics being provided with credit for the construction of intrafarm roads, bridges and crossings. And indeed nobody can negate today their great importance with regard to economic development in the rural areas.

There are still frequent incidents of long term credit being extended to kolkhozes, the financial status of which makes it possible to implement capital investments using their own resources. Individual farms are using long term loans in the presence of large underpayments and surplus funds on the capital investment funds at the end of the year, thus limiting the availability of resources to those kolkhozes experiencing shortages in their own resources. During 3 years of the Tenth Five-Year Plan alone, the underpayments of resources intended for capital investments by RSFSR kolkhozes amounted to 986 million rubles. It is obvious that effective measures must be employed against those farms which are tolerating a diversion of resources. Moreover, in the decree handed down by the party and government entitled "On Improving Planning and Intensifying the Effect of the Economic Mechanism With Regard To Raising Production Effectiveness and the Quality of Work," considerable importance is attached to the use of credit in construction.

Beyond any doubt, the realization of one important point in the mentioned decree, concerning evaluations of the economic activity of construction-installation organizations and also the awarding of incentives to them based upon results achieved in placing production capabilities and projects in operation, will promote an acceleration of construction operations and improved quality in the facilities being erected.

At the present time, it is important that the local agricultural organs and also the contractual construction organizations thoroughly understand the status of affairs at each project and undertake all measures required to ensure the rapid completion of their construction.

Nonchernozem Zone Progress

Moscow SEL'SKOYE STROITEL'STVO in Russian No 3, 1980 pp 14-15

[Article by A. Mikhaylov, Candidate of Architecture: "Reserves for Raising the Effectiveness of Rural Reconstruction"]

[Text] Recently, critical comments have been made on a more frequent basis concerning the shortcomings of multiapartment construction in the rural areas. The difficulties associated with the maintenance of private plots, the weak link with nature and the architectural shortcomings of multiapartment buildings are arousing criticism among the rural inhabitants and prompting them towards the construction of farmstead type homes for one or two families. Such settlements as the central farmstead of the Bol'shevik Kolkhoz in Vladimirskaya Oblast, the Sel'skaya Nov' Kolkhoz in Moscow Oblast and others, built mainly on the basis of single-apartment homes, provide in their overall appearance, a successful combination of the best features of the Russian countryside with the advantages of modern planning and construction, nearness to the land and high dwelling comfort.

At the same time, the cost of building single-apartment farmstead homes is 20-30 percent higher than that for multiapartment buildings and the expenditures of funds and materials for equipping them with water, sewerage and heating lines, from centralized systems which furnish the greatest comfort is 1.5-2 times greater. In the interest of keeping within the acceptable cost indices for living space, the builders often reject the installation of both centralized and local systems of engineering services, postponing them to a considerably later period of time.

However, numerous sociological studies have shown that of all of the qualities possessed by a dwelling, the rural residents attach the greatest importance to a high level of domestic conveniences.

Great importance is attached to the industrial construction of farmstead homes and to improving the local systems of engineering facilities. But in view of the fact that each farmstead type home requires its own foundation, roof and a large perimeter of walls, its plant production is relatively more expensive than that for apartments in a sectional or interlocked home. Thus, in the construction of plant produced farmstead type homes, other means should ideally be found for providing the rural inhabitants simultaneously with a high level of domestic conveniences and good conditions for the management of private plots.

One such means could be more flexible use of the existing fund of farmstead type homes. During the past 20 years, approximately 850 million square meters of rural dwelling space have been built. Up to 80-90 percent of this fund was in the form of single or double apartment buildings, the most suitable types for managing private plots. Their condition varies and they differ sharply from homes of the previous building period in terms of their space-planning solutions and materials used. A large number of them are in good condition and can still be used in the future.

Nevertheless, in the draft planning for rural populated areas, the predominant portion of this still fully suitable housing fund, the construction of which involved expenditures of up to 100 billion rubles on the whole, is being ignored. Actually, the housing fund of unpromising villages that have been abandoned by the population, which constitutes from 40 to 80 percent of the overall housing fund of a kolkhoz or sovkhoz, is not being taken into account. Many existing homes at central farmsteads do not fall within the boundaries of a new village, but rather they are located in sanitary zones, where they are dismantled in order to accommodate larger buildings of the central portion of a settlement and so forth (see Figure 1).

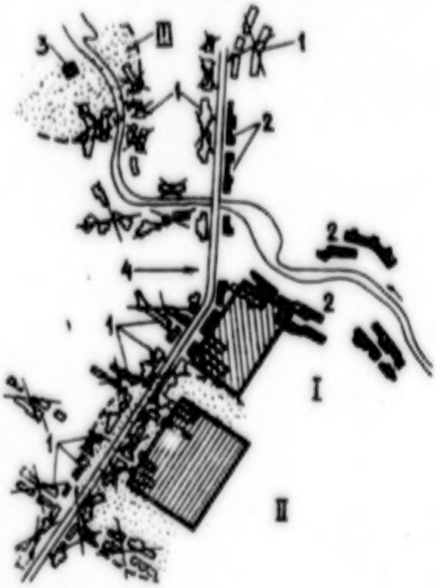

Figure 1. 1. Housing building system for an existing village, not included in the new general plan for a settlement owing to its position in the sanitary zones, at a great distance, occupied by production complexes, alongside a transit road, in sectors having poor natural conditions; 2 -- protected building system of an existing village, 3 -- purification installations; 4 -- transit road; I -- housing zone, II -- production zone, III -- sanitary-protective zone.

As a result, of the overall number of dwellings available on a farm, success is usually achieved in preserving only 10-15 percent of them for the future (see Figure 2). For the country as a whole, only up to 700 million square meters of housing space in the form of homes built during the past 20 years should be replaced by means of this method.

This obviously is not meant to imply that the entire housing fund mentioned above should immediately be dismantled. Life introduces its own corrections. However, orientation towards imminent replacement of these existing homes involuntarily arouses a neglectful attitude towards them, a trend towards accelerated amortization and dismantling and from an objective standpoint this can in no way be justified.

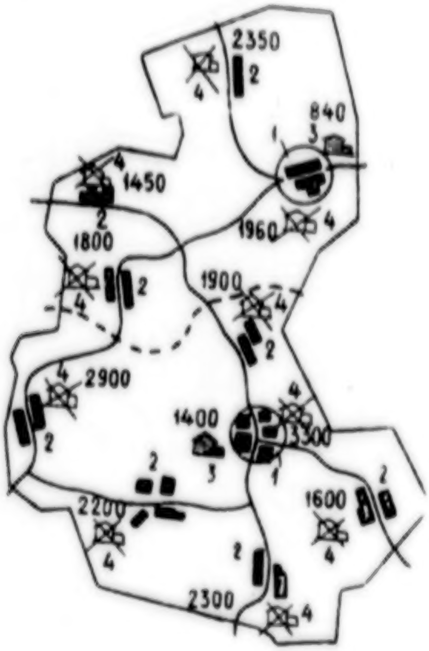

Figure 2.

The rates of construction will undoubtedly increase in the future. Yet 10-12 years and more will be required for replacing the fund accumulated over a period of many years. Nor will mere replacement suffice. Rather, the existing housing fund must be expanded considerably, in order to enable the people to live more comfortably with each passing year. And it turns out that by orienting ourselves in the draft planning towards the rapid replacement of the existing housing fund, we limit to a definite degree the possibility of improving the domestic conditions for rural inhabitants for the next 10-15 years.

This is why it would be reasonable and thrifty to make full use of a suitable housing fund.

At the same time, many existing dwellings have become obsolete. They lack the required conveniences, they are not always sufficiently roomy and quite often they are located in areas not specified in the general plan. These shortcomings can be eliminated either completely or partially. The existing dwellings should ideally be restored and rebuilt: remove ugly annexes, renovate facades, build garrets, expand windows and install local systems for heating, water supply and sewerage.

The center of a settlement should ideally be distinguished by buildings which are more noticeable in terms of their size and architectural type. This can be accomplished not by dismantling old homes and erecting sectional buildings, but rather by joining together two or more homes using interconnecting units containing kitchens and sanitary units (see Figure 3), by the addition of second stories, attics and so forth. This will make it possible to add greater expressiveness to the arrangement of the principal streets and to preserve the individuality and originality of the rural image and the unique nature of its appearance.

In order to make use of farmstead homes which are not located within the limits of a new settlement, they can be moved; the larger of such units, obtained from other villages, can be moved and located in the farmstead sector of a settlement building plan. Experience in the moving of single-story homes over distances of up to several tens of kilometers is available both in our country and abroad. For example, up to 100 homes from neighboring villages were moved to the central farmstead of the Iskra Kolkhoz in Kirovskaya Oblast. Interesting methods were employed for moving homes in connection with the creation of the Lenin memorial in Shushenskoye; metal frames were inserted under the buildings and reliably secured throughout the entire period of movement and installation on earlier prepared new foundations.

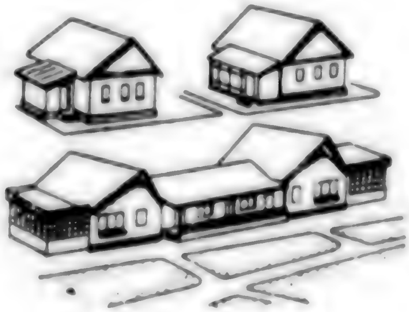

Figure 3.

In connection with the tremendous volume of work associated with the rebuilding of villages and the large number of suitable and strong farmstead type homes in unpromising villages, specialized construction brigades possessing powerful equipment, devices and special equipment for moving homes without dismantling should ideally be created.

This will make it possible to realize a considerable savings in resources. Estimates have shown that, depending upon the condition of a dwelling and the type of work required for its restoration, the carrying out of the measures described above will cost 40-80 rubles per square meter of space (average cost per square meter of overall space in sectional homes -- 170 rubles). In the case of a home having an overall area of 80-100 square meters, it is possible to realize a savings of 6,000-8,000 rubles. The expenses for moving a home, depending upon local conditions, amount to 20-40 percent of the cost of constructing a new home. Thus the movement and restoration of homes makes it possible to retain up to 50 percent of the existing housing fund, with the overall expenditures amounting on the average to one half of the cost of new construction (see Figure 4). For an average farm with a population of 1,500-2,000 individuals, the approximate savings ranges from 500,000 rubles to 1 million rubles and for all farms in the nonchernozem zone on the whole -- 8-9 billion rubles.

Hence the retention and restoration of suitable existing homes may prove to be of assistance during the next few years in making more flexible and efficient use of available resources and in rebuilding the rural areas in a more successful and more rapid manner. And this is particularly important in view of the fact that the potential for priority construction has been greatly exaggerated in many draft plans. In accordance with established practice in the planning of rural settlements, the plans call first of all for the construction of dwellings using a norm of 13 square meters per individual and for the more necessary public buildings -- childrens' and school, trade, municipal and also engineering networks and the installations for providing them with support. It turns out that the expenses for such a volume of work amount to 50-75 percent of the overall expenses and this does not conform with the investment potential.

The rebuilding of the rural areas in the nonchernozem zone requires expenditures of 3-8 million rubles per settlement and for all 4,300 sovkhozes and 5,400 kolkhozes in this zone -- 40-60 billion rubles. A computation based upon existing planning practice reveals that priority construction operations would require expenditures of 25-40 billion rubles. It is obvious that such a tremendous amount cannot be allocated in just 5-8 years and that the first phase of construction would last for a considerably longer period of time.

A methodological mistake exists in planning. It consequences are very serious. It results in plans calling for the erection of projects which are beyond the capability of many farms. At the same time, this makes it difficult to find more economic means for rebuilding the rural areas. In addition, by including a large portion of the construction in the first phase, we involuntarily define the appearance of the entire settlement, based upon our present material and technical potential. But after 10-15 years have elapsed, the material-technical base of agriculture will be on a more developed technical level and the requirements for settlements will have increased.

It would seem that a more consistent approach is required for planning the rebuilding of rural populated areas, an approach that is based upon fully

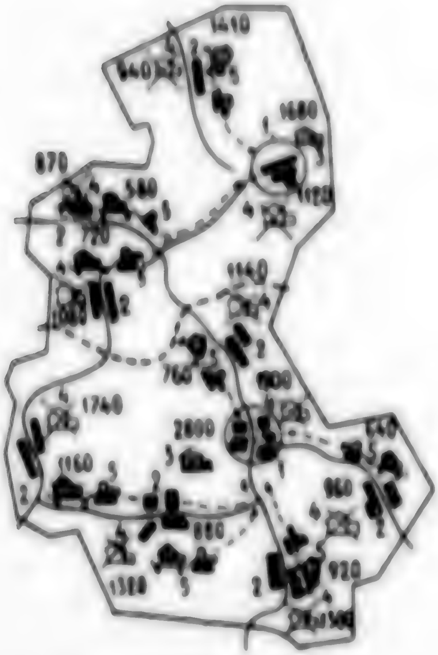

Figure 4. Applies to Figures 2 and 4: 1 -- promising settlements of a farm having a population of 2,000 individuals, 2 -- unpromising villages, 3 -- housing fund retained, 4 -- housing fund not retained, 5 -- housing fund moved to the central farmstead.

taking into account the potential for each stage of construction -- a type of strategy for the best use of all available resources. One of its elements can be the use of a complex of measures for achieving a more rational use of the housing fund that has developed in the rural areas, since this will make it possible to lower the expenditures for creating well organized dwellings in central settlements and to allocate more resources in future years for the construction of cultural-domestic buildings and civic improvements.

An important contribution will be that of further improving the types of multi-apartment homes, with the introduction of forms of collective self-service, particularly cooperation and mutual assistance in the management of private plots, the potential of which is still far from being realized.

A thorough study of the conditions for rebuilding rural areas will make it possible to uncover other reserves. For example, the draft plans often reveal the fact that farmstead type homes have not been connected up to water, heating and sewerage lines that pass close by. The public center and sector of multi-apartment homes are often located somewhere in the middle of a settlement and the networks of centralized systems, for a kilometer or more, are laid out along the streets in the vicinity of the farmstead type homes. The connecting up of these homes to the centralized systems is hindered by the overall arrangement, based upon recommendations by TsNIIEP [Central Scientific Research Institute of Experimental Planning] for engineering equipment, considered to be valid only for the building of single-apartment farmstead type homes, but which naturally do not take into account the incidents described. Meanwhile, an analysis of draft plans has shown that this method makes it possible to connect up to 30 percent of the farmstead type homes to the centralized systems, locating them along cul-de-sacs and loops. And here the systematic underfulfillment of work exerts an adverse effect on the quality and efficiency of construction work carried out on a settlement.

A more flexible approach towards the rebuilding of settlements is partly reflected in their appearance.

Restored farmstead type homes may occupy a noticeable place in a building plan and more improved types of multi-apartment homes will appear. Farmstead type homes which are connected up to centralized networks are laid out in a compact manner. The more important sectors of a settlement, for example those near an entrance or the public center, can be reserved for buildings planned for the end of the construction period, since they will be more expressive in terms of their architectural appearance.

Thus the overcoming of methodical difficulties caused by a schematic approach being employed for solving certain basic problems associated with the building of settlements will make it possible to use available resources, more flexibly and efficiently, in the campaign to rebuild the rural areas and to respond to the decisions handed down during the July (1978) Plenum of the CPSU Central Committee, in connection with raising the efficiency and quality of work associated with the building of rural populated points.
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Experiment in Tul'skaya Oblast

Moscow STROITEL'NAYA GAZETA in Russian 14 Dec 79 p 3

[Article by V. Kapel'kin (Tul'skaya Oblast): "Unsuccessful Search"]

[Text] The determination of the goals and strategy for the experiment, the methods for selecting and processing the results of observations and the adoption of recommendations -- these are all mandatory phases for the experiment. And the specialists attached to the Administration for Rural Construction and the Planning and Building of Rural Populated points of RSFSR Gosstroy are attempting to do precisely this. However, this efficient system cannot endure a collision with operational practice.

More than 10 years ago, in accordance with a decision handed down by the government, plans were made to commence experimental-model construction in the rural areas. Today, when traveling through the Ukraine, Belorussia and the Baltic republics, we see tens of settlements where building methods were studied and worked out and the plans for residential, public and production buildings were tested. In short, experience has been accumulated.

Success was ensured by the fine organization of this expensive and laborious experiment. For example, in Belorussia the decision was made to finance the experimental construction by means of a special procedure and importance was attached to ensuring that the party organs exercised control over the course of the work.

The work was organized somewhat differently in the Russian Federation. Centralized financing was rejected immediately and control was entrusted to... In RSFSR Gosstroy at the present time, they sadly recall -- to them. But to whom can the question be addressed: of 140 settlements, why is it that no more than 20 were built?

In preparing for the experiment, an imposing oblast committee thoroughly weighed all of the "pros" and "cons" and it took into account the degree of farm development and the availability of suitable lines of communication, rivers, greenery and even pretty landscapes. And two settlements were selected -- Strakhovo (Polenovo Sovkhoz in Zaokskiy Rayon) and Bakhmet'yevo (Kolkhoz imeni Lenin in Bogoroditskiy Rayon).

But the potential for a construction base was not considered. Meanwhile, in orienting the oblasts and autonomous republics towards completing the experimental program in 1975, Gosstroy and the republic's Ministry of Agriculture emphasized the importance attached to employing not only modern methods for the planning of settlements and new plans for residential dwellings and public buildings but also leading construction methods.

Moreover, in the absence of authoritative instructions, it is clear than an industrial base is the foundation for any construction work. Can much benefit be derived from the fine plans of architects if no materials are available with which to build? It is obvious that the recommendation should have been made to the contractors to employ more efficient work methods, perhaps create experimental-model subunits. But this was not done. Traditional methods, traditional materials. The projects were distributed among the contractors with no explanation being provided with regard to the purpose of the experiment and the model villages disappeared within the overall list. Is it any wonder that Glavprioksketroy, during the 1975-1978 period, built only one home annually in the settlement of Strakhovo or that only the foundation of the public center was built? In all, only one third of the resources made available were actually used here.

Bakhmet'yevo Settlement did not become a training ground for new construction methods. True, the contractor -- Oblkokkhozstroy -- intended to test its strengths in panel construction (using parts produced by enterprises of Glavprioksketroy), but the work never advanced beyond this point. Actually, Oblkolkhozstroy accepted only a portion of the projects. Yes and these it is erecting very slowly. The sub-contracting organizations of the main administration were forced to wait until the general contractor had completed the boiler and purification installations (they should have been turned over for operation in mid-1976). Although they were finally turned over, the quality of the construction was such that the specialists were not certain that they could be used. As yet, only slightly more than one half of the resources available in Bakhmet'yevo have been used.

The years pass and not only the builders but also the planners tend to forget that they are participating in the experiment. How else is it possible to explain the fact that the Tulkolkhozstoryproyekt Institute at times carried out several mediocre plans in Bakhmet'yevo, including some which were clearly obsolete. Quite often the planning solutions become obsolete during the course of construction. For example, dwellings erected in Strakhovo 10 years ago are no longer new; considerably better standard plans are presently available. TsNIIEPgrazhdansel'stroy [Central Scientific Research Institute of Experimental Planning for Civil Rural Construction] is presently proposing the construction here of second generation homes. But will they become obsolete waiting for the contractors?

It was only natural for the workers attached to the oblast inspection of Gosarkhstroykontrol' [State Architectural and Construction Control], during a review of the construction of the experimental-model settlements, to draw the conclusion: "The task of experimental construction of dwellings and sotskul'tbyt projects in the mentioned settlements, for the purpose of increasing their use in the rural areas, has lost its importance."

This is a disappointing result. But the oblast leaders have obviously already abandoned hope for the experiment. If this were not so, how is it possible to explain the fact that, without waiting for completion of construction of a cooperative public center in the settlement of Strakhovo, the Tul'skaya Oblast Executive Committee approved the creation of such centers in all areas? Indeed, it is the experimental method which makes it possible to check and see if it is necessary or even possible to combine, under one roof, a school with a refreshment bar, a restaurant and a hotel.

Such was the attitude towards the experiment. The form for the experiment was followed and even over-fulfillment took place: a third experimental settlement -- Spasskoye -- appeared in the oblast. True, as an experimental settlement it was antedated -- in 1977 -- after it had almost been built. Moreover, nobody in Tula or in Gosstroy or the RSFSR Ministry of Agriculture was disturbed over the fact that it was built without an approved general plan. More accurately, the paper was available somewhater in the administration and yet it had not been seen for some time. Why then did the experiment take place here? The oblast planning institute copied the existing building system and 1 year following recognition of the settlement as being experimental, that is in 1978, it sent the "new general plan" to RSFSR Gosstroy for approval.

Experimental-model construction can serve as a reliable lever for raising the quality of modern rural construction. It can and must. Only if it accomplishes this, can it be termed experimental-model construction.

Rural Construction Minister

Moscow SEL'SKOYE STROITEL'STVO in Russian No 3, 1980 pp 1-3

[Article by N. Mal'tsev, RSFSR Minister of Agriculture: "Shock Labor During the Final Year of the Five-Year Plan"]

[Text] The 4 years of the Tenth Five-Year Plan have been marked by wonderful labor accomplishments by the Soviet people, as they implemented the decisions handed down during the 25th CPSU Congress. The rural builders of the Russian Federation made a definite contribution towards the carrying out of these decisions.

Compared to the same period for the Ninth Five-Year Plan, the contractual work volumes carried out by organizations of the RSFSR Ministry of Rural Construction increased by 1.3 billion rubles, or by 16 percent and in rayons in the nonchernozem zone of the RSFSR -- by almost 25 percent.

In carrying out the decisions handed down during the July (1978) Plenum of the CPSU Central Committee, the ministry directed the efforts of subordinate construction organizations towards achieving further development of the material-technical base for agriculture. In the case of agricultural construction as a whole, 5.4 billion rubles worth of contractual work was carried out, or 25 percent more than for the same years during the Ninth Five-Year Plan. Special attention was given to rural construction projects in the nonchernozem zone of the RSFSR.

The following installations entered operations during this period of time: facilities for cattle -- for 850,000 head, pigs -- for 700,000, sheep and goats -- for 811,000 head, adult poultry and chicks, including poultry factories specializing in eggs -- for 15 million head of poultry and poultry factories specializing in meat production -- for 46 million broilers. The following facilities also commenced operations: 32 stations for breeding work, elevators possessing an overall capacity of 7 million tons of grain, mixed feed enterprises having a productivity of 13,000 tons of mixed feed daily and many other agricultural and raw material processing projects. the following facilities were built in the rural areas: dwellings providing actual living space of approximately 10 million square meters, schools for 479,000 students, childrens' pre-school institutes for 89,000 attendees and clubs and palaces of culture for 129,000 individuals.

During the 1976-1977 period, 128 PMK's [mobile mechanized column] and 16 mechanization administrations were organized and eight construction-installation trusts were created in new and remote regions of construction. The overall number of agricultural administrations and trusts of oblast importance increased to 115, of which number 15 were specialized in nature.

In carrying out the directives of the 25th CPSU Congress, the ministry followed a course aimed at creating SSK's [rural construction combine] and

N. Mal'tsev, RSFSR Minister of Agriculture

DSK's [housing construction combine], which combine the production of construction structures, their complete delivery to the construction site and erection (installation) with the placing of the buildings in operation. Their number has reached 23; 12 more SSK's and DSK's are to be created during 1980.

Much has been accomplished. But although a good foundation has been laid for carrying out the five-year program, the final year of the five-year plan -- 1980 -- is nonetheless a year of extremely tense work.

In the plan for 1980, the ministry took into account the positions and conclusions expressed by the General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, Comrade Leonid Il'ich Brezhnev, during the November (1979) Plenum of the CPSU Central Committee concerning capital construction. He directed attention to the serious shortcomings in this work and he emphasized that the construction schedules are often prolonged and that the resources are not always being allocated for use at priority construction projects.

A priority task of the rural construction organizations during 1980 is that of eliminating these shortcomings. Every attempt must be made to concentrate the working cadres, material-technical resources and mechanization and transport equipment at underway projects, to introduce capabilities and construction projects into operations in accordance with the schedules established in the plan, to reduce the amount of unfinished construction production in a systematic manner, to raise the quality and lower the cost of construction-installation work and to achieve the prescribed increase in labor productivity. Moreover, it should be borne in mind that, owing to demographic peculiarities, only negligible numbers of workers will be added to the construction organizations in the immediate future and thus an increase in the work volume must be achieved by means of raised labor productivity.

In 1980 the program for contractual work by the RSFSR Ministry of Rural Construction was established at 2.5 billion rubles.

The plan for agricultural projects and projects of agriculturally-related branches in the nonchernozem zone of the RSFSR is increasing. At these construction projects there has been an increase of more than 15 percent compared to the 1979 level. The plans call for the placing in operation of considerable capabilities at poultry factories for meat and egg production, animal husbandry complexes, hothouse-hotbed combines, mineral fertilizer storehouses, repair enterprises of Goskomsel'khoztekhnika, breeding stations and other enterprises of the material-technical base for agriculture. The elevator construction organizations must furnish the customer with a considerable number of new grain storage facilities, enterprises for the preparation of mixed feed and mills. New capabilities for the production of whole milk products, dry skim milk, flax plants and a number of other facilities must be built for the ministries of the light and food branches of industry.

Special attention is being given to housing and cultural-domestic construction in the rural areas. The RSFSR Council of Ministers has required the ministry to place in operation, during the first 6 months, no less than 50 percent of the annual plan for housing, schools and professional-technical schools -- prior to the beginning of the academic year. The animal husbandry facilities must be prepared for the indoor maintenance of the livestock.

The tense plan of the ministry, approved for 1980, is fully realistic and especially in rayons of the nonchernozem zone of the RSFSR. The construction organizations have adequate reserves at their disposal, which consist first of all of improving the organization and further industrialization of rural construction, organizing in an efficient manner the engineering completion of construction projects in terms of structures and parts, ensuring a continuous supply of materials for the projects and eliminating concealed intrashift losses in working time.

One of the principal factors for ensuring the successful fulfillment of the increasing volumes of contractual work is further improvements in the technical level of production, increasing the degree of prefabrication and introducing new structures and materials into construction. According to the plan, the proportion of completely prefabricated construction in 1980 will exceed 56 percent. Of the overall volume, the proportion of completely prefabricated construction of rural production buildings and installations will amount to no less than 80 percent.

A considerable portion of the secondary-auxiliary buildings of agricultural production complexes are still being erected using brick. In 1980 the plans call for such facilities to be constructed using mainly the completely prefabricated variant.

The plans call for a further and considerable increase in the use of structures made out of light concretes based upon porous aggregates, large floor slabs in livestock facilities, light-weight structures involving the use of large asbestos-cement sheets, progressive pile foundations and wooden-glued structures. In 1980, at the Kol'chugino ZhBI [reinforced concrete products] plant of the Vladmirsel'stroy Administration, the production of panel-coverings [KZhSO] will commence on an experimental basis. These panel-coverings, measuring 3 X 18 meters and made from light concretes, will be used for the floor of agricultural production buildings. The use of such slabs reduces sharply the number of installed elements in buildings and makes it possible to raise labor productivity considerably during installation operations.

A considerable increase will take place in the extent of use of precast floor elements for agricultural buildings. They will amount to more than 350,000 square meters, compared to only 150,000 square meters in 1979. The plans call for the introduction into operations on an extensive scale of pile foundations, including progressive types of piles without transverse reinforcement, pyramidal pile-driving units and T-shaped piles, which are especially effective for agricultural buildings of brace-type construction. Compared to last year, roofing work carried out using the method of plasticizing with built-up roofing felt, with labor productivity thus being raised up to 36 percent, will increase by threefold.

This year the plans call for all SSK's of the ministry to have the capability to produce structures that are in a full state of plant readiness. The production of spacious sanitary engineering cabins of various designs has been organized at a number of plants. A technological line has already been placed in operation at the Kalininskiy SSK for the production of floor slabs 2.4 meters in width, having a hole diameter of 127 millimeters and working surfaces that have been prepared for the laying of linoleum and the painting of ceilings. The use of such slabs lowers the labor intensiveness of floor installation work by 0.11 man-days per square meter of space.

Experience has been accumulated in organizations of the ministry with regard to the development and implementation of plans for complex engineering preparations in the rural construction administrations, trusts and PMK's. All of the rural construction administrations and trusts must operate on the basis of these plans during 1980. A considerable increase will take place in the amount of large panel housing construction and in the use of glued wooden structures, as a result of more complete use of the capabilities of DSK's and production enterprises. The complete production of wooden prefabricated homes of the farmstead type is being organized at the Kalininskiy SSK and the Vologda Wood-Working Combine. The introduction into production operations of non-channel installation of heating lines and compact purification installations will be continued in greater volumes.

During the years of this current five-year plan, the capabilities of the ministry's enterprises for producing industrial structures and products developed at an accelerated tempo. The capability to produce precast reinforced concrete increased by 1.2 times and amounted to 7.4 million cubic meters at the beginning of 1980 and porous aggregates -- 4.7 million cubic meters.

Last year, the production of large-panel homes of the farmstead type commenced at 12 enterprises. The capabilities that have been created for large-panel housing construction are such that up to 65 percent of the dwellings can now be erected using this method.

The production base for construction organizations in the nonchernozem zone developed at a high rate of speed. Here the capabilities for precast reinforced concrete increased by 1.2 times during this period, large-panel housing construction -- by 2.4 times and porous aggregates -- by 1.3 times.

At the Kalininskiy, Priokskiy and Mariyskiy SSK's and at a number of other enterprises, successful use is being made of a plant method for the finishing off of the facades of external wall panels, mechanized spackling of floor and ceiling slabs and the lining of staircase landings and the bottom plates for sanitary engineering cabins. In the finishing off of dwelling facades, use is being made of reinforced concrete loge enclosures in place of metal structures.

The mastering of the production of acoustic homogeneous floor slabs has commenced at industrial enterprises of the ministry. Their use in housing construction, assuming optimum expenditures of metal and concrete, will make it possible to avoid the use of wood in the installation of floors and thus realize a considerable reduction in labor expenditures in construction.

Automatic lines for the non-residue cutting of reinforcing rods have been introduced successfully at the Bryansksel'stroykonstruktsiya and Orelsel'stroykonstruktsiya associations, at the Kalininskiy and Priokskiy SSK's and at other enterprises.

At the Krasnokamsk ZhBI [reinforced concrete products] Plant, the Engel's SSK, the ZhBI plant in the settlement of Gul'kevichi of the Krasnodarkraysel'stroykonstruktsiya, jointly with the YuzhgiproNIIsel'stroy Institute, positive experience has been accumulated in the use of complex additives and the steam heating of concrete, in connection with single-stage and double-stage mixing. This is making it possible to reduce the specific consumption of steam to 80 kilograms for the production of 1 cubic meter of lightweight aggregate concrete parts. The production of sets of structures for storehouse facilities has been mastered by the Vel'sk, Cheboksary and Nelidovo shops. The production of light wooden girders with metal plates has been mastered at operating enterprises of Marstroytrest and the Gor'kovoblsel'stroy Administration. The production of sheet parquet and rack floor panels involving the use of production waste products and deciduous type wood has been organized at 24 wood processing enterprises of the ministry. In the interest of utilizing the waste products of production, the plans call for the creation of 12 shops for the production of items made from arbolite.

On the whole, 1.5 billion rubles of capital investments were allocated for the development of the production base during just 4 years of the Tenth Five-Year Plan, with 670 million rubles of this amount for the nonchernozem zone.

During the past 4 years of the five-year plan, for the purpose of training highly skilled cadres of workers, the ministry built complexes of professional technical institutes for 8,825 students and it placed in operation 2.3 million square meters of housing space (almost 70,000 families of rural builders celebrated housewarmings). New kindergartens and nurseries capable of accommodating 10,500 youngsters were opened.

In 1980 the task of the ministry's rural construction administrations and trusts consists of further increasing the capabilities of the production base and achieving more complete satisfaction of the requirements of the collectives for housing and childrens' pre-school institutes.

During this current five-year plan, roughly one third of the overall increase in labor productivity must be achieved by means of further improvements in the level of mechanization in construction operations. In the interest of improving the use of mechanization equipment, all of the principal machines have been concentrated at 112 administrations and three mechanization trusts and light mechanization equipment and mechanized instruments -- in 78 light mechanization sectors. All of this has made it possible to lower the volumes of manual labor to the 1975 level, for earth work by 20 percent, plastering -- by 28 percent, painting -- by 18 percent and to release 11,000 workers during 4 years of the five-year plan.

At the same time, substantial shortcomings and unused reserves continue to persist in the sphere of construction mechanization. Not all of the main construction machines are being operated during double-shift work and the manual labor expenditures for labor consuming operations are great. Owing to weak engineering preparations for production and a low organization of construction, the construction equipment is lying idle at times with no production work being carried out. The elimination of these shortcomings and the utilization of reserves represent an urgent task confronting the ministry's organizations.

It is difficult to exaggerate the role of motor and railroad transport with regard to ensuring fulfillment of the plan for construction-installation work. The organizations of the ministry must increase the load carrying capacities of the motor vehicles, make more extensive use of progressive forms for utilizing the motor pool, reduce in every possible way the idle time of railroad cars during freight operations, increase the front for the loading and unloading of freight cars by extending the railroad routes and ensure the construction of warehouse facilities. Improvements must be carried out in the utilization of circular routes, using the ministry's railroad equipment and the equipment of the MPS [USSR Ministry of Railways].

The ministry must implement measures aimed at improving storage and transport operations, building cement storehouses and expending construction materials in a rational and thrifty manner.

Long-range plans have been prepared for the further development of UPTK [Production-Technological Completion Administration] bases, trusts and administrations into highly mechanized complexes. These complexes are responsible for the finishing off, completion, containerization, packaging and delivery of material resources to the projects under construction, not according to individual types but in sets for the accepted units of work (underground work, floor, span, separate installation).

During 1980, special attention must be given to realizing maximum economies in the use of metal, timber and also all types of petroleum products and electric power.

In carrying out the plans for the current year and the five-year plan on the whole, a very important role will be played by the personnel. Under conditions involving an acute deficit in labor resources, every attempt must be made to raise the effectiveness of the labor being performed by the workers and to create normal housing and cultural-domestic conditions for them.

A great amount of work has been carried out in this regard in the organizations of the ministry. However, it bears mentioning that the situation with regard to ensuring that adequate cadres of workers are available is arousing serious concern. Labor turnover is still considerable. Such large organizations as Kalininsel'stroy, Kostromaoblsel'stroy, Krasnoyarskkraysel'stroy, Udmurtsel'stroy and Khabarovskkraytselinstroy are not addressing themselves properly to those problems concerned with creating permanent skilled cadres.

The interests of the work require that fixed attention be given to training workers at basic vocational and technical schools. They serve as the principal source for replenishing the skilled cadres of workers.

The extensive introduction into operations of the brigade contract method will play a decisive role with regard to raising production efficiency. One task for 1980 will be that of increasing the number of brigades from 3,600 to 4,300 and ensuring that they carry out more than 40 percent of the work volume.

A tremendous reserve is available in the form of raising backward collectives to the level of leading ones. Within the ministry there are hundreds of brigades which are exceeding their shift tasks by 1.5-2 times and approximately 100 brigades have already completed their five-year task. Remarkable successes were achieved in 1979 by the labor collectives of such administrations as Yakutsel'stroy, Magadansel'stroy and the Sakhalinsel'stroy, Ivsel'stroy, Krasnoyarsktselinmontazh, Spetselevatormel'montazh, Tsentrosel'stroytrans and Nechernozemelevatormel'montazh, all of which fulfilled their plan for 4 years of the five-year plan during the August - October period.

The achievements of our leading brigades, headed by laureate of the State Prize of the USSR M.A. Bubyakin of the Vologdasel'stroy Trust, M.B. Koblov and V.V. Prokhorov of the Astrakhansel'stroy Trust, N.I. Polyakov of the Vladimirsel'stroy Administration and N.Ye. Savel'yeva of Marstroytrest have been added to the chronicle of labor glory for the five-year plan. By following their example, approximately 100 brigades of the ministry have fulfilled their five-year tasks and are presently working in behalf of 1981. More than 500 brigades have seized upon the initiative displayed by the leading collectives in Sverdlovskaya Oblast and their work motto is "The Five-Year Task With a Fewer Number of Workers."

Their experience should be disseminated in a more active and more extensive manner.

In order to carry out the tense program of the final year of the five-year plan successfully, the entire army of 500,000 workers attached to our ministry must be motivated towards carrying out their work in a creative and selfless manner and the socialist competition must be organized in as skilful manner as possible.

In 1980 the standard bearers of the competition will be the collectives of the Vladimirsel'stroy, Ryazan'oblsel'stroy and Krasnodarkraysel'stroy administrations, the Cherepovetssel'stroy, Sevkavelevatorstroy and Novosibirsksel'stroymontazh trusts, the Bryansksel'stroykonstruktsiya Association and other organizations and brigades.

The socialist obligations of the initiators of the competition are sound from an engineering standpoint. They serve as a fine reference point for all of our subunits.

Under conditions involving the rapid development of scientific-technical progress and unfailing growth in the scales of construction and industrial production, a special urgency is attached to the Decree of the CPSU Central Committee entitled "Further Improvements in the Economic Mechanism and the Tasks of the Party and State Organs" and to the Decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Improvements in Planning and Intensification of the Effect of the Economic Mechanism With Regard To Raising Production Efficiency and the Quality of Work." Measures have been developed by the ministry and approved by the board for ensuring fulfillment of these important decrees of the party and government.

The successful implementation of the mentioned measures, the carrying out of the decisions handed down during the November (1979) Plenum of the CPSU Central Committee and the extensive unfolding of the socialist competition to prepare in a worthy manner for the 110th anniversary of the birth of

V.I. Lenin and the 26th CPSU Congress in 1980, will serve to guarantee the unconditional fulfillment of the tasks assigned to RSFSR Minsel'stroy during the final year of the Tenth Five-Year Plan.

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GENERAL OVERVIEW OF RESIDENTIAL HOUSING PROGRESS

Newspaper Editorial

Moscow STROITEL'NAYA GAZETA in Russian 15 Feb 80 p 1

/Editorial: "The Competition of Urban Developers"/

/Text/ In putting into effect the constitutional right of the Soviet people to housing, we learned to build a lot and to build quickly. But there is another no less important requirement--to increase the quality of mass housing construction. And it is a question not only of the high quality of each apartment house and each apartment. Today the concept of the quality of housing includes both the completeness of the development and its architectural expressiveness. The goal was set for everyone, who is involved in the complicated process of urban development, in precisely this way at the 25th CPSU Congress: to improve the layout of apartments, to build soundly, with good quality and with a beautiful appearance.

Much has been done for this. About half of all the apartment houses today are being built according to new standard plans. Millions of new settlers of our country have had an opportunity to appreciate the high level of comfort in apartments of the new series. And externally these buildings differ favorably from their predecessors. However, Soviet architects still need to do much work in order to lend integrity, expressiveness and originality to the new rayons and to embody in industrial forms a modern architecture which would reflect the greatness of our achievements.

One of the features of the present stage of development of urban development is that workers of enterprises of the construction industry and house building combines participate in this process "on equal terms" with the architects. For today more than half of all the apartment houses are built from large-panel components. Therefore the possibilities of designers are most directly dependent on the level of development of the base of completely prefabricated house building. In turn the achievements of the house builders are directly connected with how rational the design decisions are and how the product mix is taken into account in them. The higher the degree of standardization is, the more types of houses and block sections the house building combine is able to assimilate.

It is necessary to solve all questions--economic, technical and esthetic--as a unit. That is why it is difficult to overestimate the importance of the comprehensive competition of related industries, which embraces all the participants in the urban development process.

The cooperation of urban developers today has assumed two complementary forms: the Workers' Relay Race and the urban development contract. The practice of the development of Yaroslavl', where a contract between all the participants in urban development was concluded for the first time, confirms most vividly the effectiveness of comprehensive competition and the inseparable connection of its two forms. A goal-seeking, friendly collective, to which designers, clients, workers of the construction industry and builders belong, has been formed in the ancient city on the Volga. An authors' collective headed by Secretary of the Board of the Union of Architects V. Belousov also took part in the drafting of the plan on the standard Eleventh Microrayon. But when the time came to transfer the carefully weighed decisions from sketches and models to the city land, the worker collectives took up the baton of cooperation.

New advanced forms of labor organization and advanced technology are now being tested at the standard tract. Not by chance did the first 144-apartment building become one of the most "rapid" in the city: it rose in 2.5 months. The enclosures of the balconies and loggias, which are marked with the State Seal of Quality, red brick of brands 200 and 300, as well as various finishing materials, which were manufactured specially for the Eleventh Microrayon, are arriving at the construction site.

Without replacing the organs of planning, management and supply, the comprehensive competition of related industries is helping to solve the tasks set for them and is becoming an effective means of monitoring the meeting of contractual obligations. As a result, all the obligations, which were outlined by the contract and were intended for the five-year plan, were met ahead to time. The next contract on cooperation, which will help to make new gains, was adopted at a meeting of the party and economic aktiv of the city. This will be promoted by the enlargement of the "circle" of its participants: the local organizations of the USSR Union of Artists, specialized scientific restoration production workshops and the Planning and Technological Institute for the Organization and Technology of Construction joined them. Plans of the monumental design of the city are being drafted, much attention is being devoted to urban design. Long-range planning has enabled the workers of Yaroslavl' to get a glimpse of their future: a project-by-project plan of the location of housing for the 11th Five-Year Plan has been compiled.

The effectiveness of the urban development contract is also confirmed by its rapid dissemination. Today the initiative has been taken up in more than 60 cities of the country. Many of them, while retaining the main principle of cooperation, which is aimed at the creative assimilation of the architectural heritage and its enrichment with means of expressiveness, which are commensurate with their era, are introducing their own features in the comprehensive competition.

Ukrainian urban developers are making an interesting search. A decree of the republic State Committee for Construction Affairs set up 56 model complexes: microrayons, sites, main routes. The first attempt was made to determine the optimum means of forming integral architectural ensembles on the basis of mass model construction on a republic scale. Standards of high quality of development are being built in the first and second microrayons of the southern part of L'vov, Pobeda and Solnechnyy are being built in Dnepropetrovsk, the fifth and third microrayons are being built in Zaporozh'ye.

Each of the 56 complexes was worked out, of course, in its own way, but the conclusions, to which the urban developers came in the process of work, are the same: standards can be built only on the basis of the long-range planning of flow line construction. The "continuous planning method" ensures smoothness and, hence, high quality and makes it possible to prepare beforehand for the solution of a large number of specific problems in order to implement what has been conceived in practice. For this reason in nearly all the cities, where standards of mass development are being built, they have adopted the method of the Orel workers. But in L'vov they went farther: many urban development problems, including the problem of building model microrayons, are being solved here with the assistance of the coordinating council chaired by the deputy chairman of the city soviet executive committee. Thus, this council fulfills a two-in-one task: it promotes the quickest possible placement of projects into operation and the increase of the architectural expressiveness of the development of new rayons. The council not only coordinates the activities of related industries, but also helps to implement architectural ideas. This experience should be carefully studied by the urban developers of other cities, where it might also be adopted, and comprehensive competition under the motto "For Each City a Standard of Development" should be organized.

The new form of comprehensive competition of the participants in the urban development process has been successfully tested by practice and proved its effectiveness. The state committees for construction affairs of the union republics, the city soviet executive committees, the oblast committees of our trade union and the local organizations of the USSR Union of Architects are called upon to promote its more extensive dissemination.

Concerted Approach Urged

Moscow STROITEL'NAYA GAZETA in Russian 29 Feb 80 p 3

/Article by M. Moro (Saratov-Moscow): "A Matter of Prestige"/

/Text/ The scale of the output of items for large-panel houses of series 90 at the USSR Ministry of Construction alone is 3.5 million m^3 of housing annually. The improved layout of apartments distinguishes it, the future of our prefabricated house building for the next few years lies behind it along with other promising series. But there is one circumstance which cannot but arouse serious anxiety: the planned capacities of the plants of large-panel house building so far have not been assimilated at any of the house building combines which began production of these items seven to eight years ago. That is how matters stand in Smolensk, Tambov, Kaliningrad, Voronezh and other cities. One of the reasons is the endless readjustments of the equipment due to the excessively large products list--540 types of prefabricated parts.

It would seem that the author of the standard plan--the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing--should have been the first to listen to the complaints of production workers and to revise the previously adopted decisions in order to ensure standardization. But it did not do anything.

"At one time we had a division of technical assistance, which had up to 15 specialists. Now two engineer-'introducers' are left from it. Can they do a lot?" Chief of the Architectural Design Bureau No 1 N. Rozanov explains the situation.

Not counting on the assistance of the institute, the house builders are attempting to solve the problem on their own. Thus, two years ago the USSR Ministry of Construction ordered the Saratov Combined Division (now a branch) of its Stroyindustriya Special Design and Technological Bureau to study it. There they started working energetically. When they had drawn up the first sketches, chief engineer of the division I. Vinokur with a group of specialists was sent to Moscow to the authors of the standard documents.

A. Vital'yev, chief engineer of the plan of Architectural Design Bureau No 1, who was the first to meet with the workers of Saratov, recalls this as follows:

"I said immediately that after six years of work of the institute on series 90 I did not believe in the possibility of reducing in any way substantially the number of types and on principle would not take part in the discussion of their proposals."

A strange position, is it not? But then the executives of the bureau and the institute approved of the work of the Saratov workers. True, some suggestions were justly turned down. But the institute got agreement on the majority of them (six out of seven block sections). It also regarded favorably the proposals concerning the architectural portion of the plan. But it made a very important proviso: "The adopted decisions are valid only for the Saratov House Building Combine and cannot be used at other enterprises without additional agreement from Architectural Design Bureau No 1 of the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing."

Here the Saratov workers, who represented not only their own, but also general interests, should have said that there is probably no reason for the representatives of each house building combine to go to Moscow. For the consent of the chief architect of the city or oblast is sufficient for an adjustment of individual items, if it does not worsen the technical and economic indicators and does not affect the layout decisions of the standard plan. But the representatives of the special design and technological bureau said nothing. Could they not bring themselves to disagree with old comrades or did they not expect to find understanding locally?

"Neither one. At that time we simply did not clearly know the procedure established in such cases," branch chief V. Knitel'shot explains.

But after all they must have known it at the institute! Why did Architectural Design Bureau No 1 need to introduce this procedure? Most likely they feared that the Saratov workers would rush with their sketches to the USSR State Committee for Civil Construction and Architecture and the USSR State Committee for Construction Affairs. Apparently, they did not want it to become known there that some tiny combined division of an outlying special design and technological bureau had made justified remarks concerning the standard plan issued by the mighty main institute. But let us see how the events further developed.

According to the estimates of the Saratov workers, the products list in the entire series was reduced from 540 to 280 types. The USSR Ministry of Construction began to urge the institute to make adjustments not only in the sketches for the Saratov and Voronezh house building combines (the consent of the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing was also obtained for it), but also in the standard plan. Meanwhile, resentment of the ministry gradually accumulated at the institute: having encouraged the workers of the special design and technological bureau, they ignored there the assistance given to them by the authors of the plan. In a newspaper article the deputy minister also forgot to note their services (to make amends for their own omissions!). Now at the institute not only A. Vital'yev greeted the Saratov workers inhospitably. Postponements and excuses began, and time passed.

When finally in April 1979 the ministry turned to the State Committee for Civil Construction and Architecture with its proposals, this aroused open indignation at the institute. Having forgotten that it had already given a favorable appraisal to the Saratov developments, the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing reported to the State Committee for Civil Construction and Architecture: "The materials submitted by the special design and technological bureau do not make it possible to offer a final conclusion about the feasibility of the proposed decisions." The conclusion was as follows: it will be possible to adopt the proposals of the Saratov workers only after "a preliminary experimental test."

A month later additional materials were submitted to the institute. And then there was a new meeting under the chairmanship of Chief Engineer of the Department of Planning Operations N. Dykhovichnaya. The same (but already offended!) executives and specialists of Architectural Design Bureau No 1, who previously had approved of and agreed to the sketches three times, took part in it. Now A. Vital'yev, who had been informed of the "change in climate," was also at it. Everything, which previously had been recognized as unquestionable or appropriate, was suddenly called into question or was declared perfectly worthless.

In explaining such an unexpected change, the executives of Architectural Design Bureau No 1 now say that an experiment is necessary.

"What are their papers? Let them build, and then we will see," chief engineer of the bureau A. Rozenfel'd, for example, states.

Meanwhile he knows perfectly well that the first house of series 90 consists of the same ordinary block sections. Consequently, in order to check the proposals of the special design and technological bureau for all the block sections, it would probably be necessary to wait another year, or else two, for their assimilation. Even the fact that the State Committee for Civil Construction and Architecture had nevertheless obliged the institute to introduce in the standard plans of five- and nine-story buildings the roofing panels standardized by the Saratov workers without any experiments, does not discourage A. Rozenfel'd.

"The ideas did not justify themselves," he says. "Even in Saratov they have rejected them! Go there and you will be convinced...."

But then the leaders of standard planning are simply being cunning, taking advantage of the situation which has formed today in Saratov. The point is that due to the delay in the placement of the new conveyor lines into operation the house building combine planned to turn over the first house for finishing only at the end of February.

"We have assimilated the ordinary section in an abbreviated products list. It is worse with the remainder. Not only is there no equipment yet for their production, there are no completely adjusted blueprints," chief engineer of the house building combine V. Zadvornov relates.

"Yes, all this is so," confirms the chief of the branch of the special design and technological bureau V. Knitel'shot. "During the work on standardization we understood that it had to be carried out not only within each of the block sections, but also between them, using as a base the nomenclature of the ordinary section. On the whole, the combine will have to wait a month or two."

The new proposals of the special design and technological bureau and the Saratovgrazhdanproyekt Institute were approved as very promising proposals in the USSR Ministry of Construction. The Saratov workers were obliged to place "base" standardization at the basis of the further reduction of the products list of series 90 and 121. Hence, in Saratov today it is not at all a question of the rejection of what has been done, as they are now attempting to represent this at the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing, but of the intensification and extension of standardization.

"These innovations pleased us at the site. They greatly simplify the installation," such is the appraisal of the construction workers and construction superintendent of the house building combine N. Vavilin, who have completed the construction of the first house.

The specialists of the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Houses are only correct in one thing: it has been possible so far to reduce the number of types in the series not by one-third and not by one-half, as they initially claimed at the specific design and technological bureau, but by 18-20 percent. But is this not a gain for production?! The proportion of "volume" items has increased nearly twofold--this is also an unquestionable success.

Nevertheless, I found the executives of the Saratov Branch of the special design and technological bureau and the Main Administration for the Production of Construction Parts and Assemblies somewhat perplexed. In spite of the achievements, they are in no hurry to publish the results of the first stage of standardization and to calculate its efficiency. One senses that here, besides the fears for their own prestige, there are also other reasons. The second stage of standardization, as they already know, will entail the replanning of a number of block sections and first of all in houses for people with small families (in them there are now an especially large number of parts with different dimensions, but of the same type). Well, what if at the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing they perceive the aspiration of the ministry to introduce everywhere the first proposals rejected by the institute as a challenge? Will they want to interfere with them now at the second stage? Look then for an arbiter in the dispute with the main institute.

There are certain grounds for such fears. For the blueprints of series 121, which were adjusted by the Saratov workers, have been lying around idly at Architectural Design Bureau No 1 for half a year now! So far the Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing has not fulfilled the instructions of the State Committee for Civil Construction and Architecture on the making of modifications in the standard documents of series 90! Meanwhile, according to temporary instruction SN 401-69, which has been in force now for 11 years, the making of any modifications in standard plans is carried out exclusively by the institutes which authored these plans. The fate of all the others in every case is to obtain permission to make changes in the blueprints only of the projects being "attached" by them. Their initiative on the improvement of the standard decisions is not envisaged by the instructions.

But, of course, it is not only a matter of instructions. All the participants in the related incident should be worried not by their own prestige, personal offenses and ambitions, but by the interests of the common cause.

Industrial Techniques Needed

Moscow STROITEL'NAYA GAZETA in Russian 15 Feb 80 p 3

/Article by Deputy Chairman of the State Committee for Civil Construction and Architecture Yu. M. Rodin: "The Efficiency of Construction With Prefabricated Modules"/

> /Text/ Here in Ufa, as in other cities of the country, a large amount of housing is being built. The new dwellings cannot but be a pleasure. But here is what is distressing: the majority of the new houses are panel houses, and they have gained a bad reputation. And they all look the same, their quality leaves much to the desired. Look at our microrayon of Novinka, which was built by the large-panel house building trust, and you will be convinced yourself of this.
>
> Now brick houses are a different matter, they must also be built....
>
> Kh. Ibragimov
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> M. Ryzhenkova of Leningrad, I. Kulikov of Kherson and others share similar doubts in their letters to the editorial board. We asked Deputy Chairman of the State Committee for Civil Construction and Architecture Yu. M. Rodin to comment on the editorial mail on this theme.

The policy of industrializing construction and further expanding completely prefabricated house building has been verified by many years of practice. More than half of all the residential buildings in our country are being built from completely prefabricated components. New standard plans, which differ favorably from their predecessors by their architectural layout and design decisions, have been drafted for all the regions of the country with allowance made for their demographic and climatic conditions. About 40 percent of the panel buildings are being built today according to the new standard plans.

Large-panel house building is also developing rapidly abroad. Thus, according to the UN Economic Commission for Europe and the International Council for Construction, the proportion of large-panel house building in recent years was 70 percent in the GDR, 68 percent in Czechoslovakia, 58 percent in Poland and 47 percent in Bulgaria. And in the countries of the West, where houses are built primarily according to individual plans, large-panel house building is being developed quite intensively and is 55 percent in Denmark, 25 percent in England and 22 percent in France.

What explains such "triumphant progress" of industrial components?

Let us turn first to the purely economic sphere. According to the data of the USSR Central Statistical Administration, in the past 15 years the actual cost of large-panel buildings in cities was on the average 10 percent lower than the cost of brick buildings. But after all nearly 500 million m^2 of total floor space in houses made from completely prefabricated components were built during that period. Thus, industrial methods made it possible to save more than 7 billion rubles, which recovers with interest the capital investments in the creation of a production base.

Here are more interesting figures. The average cost of 1 m^2 of total floor space in panel houses of five stories and more is now 10-13 percent less than in brick houses. If we compare 9- to 12-story houses (and at present they are the most widespread type of buildings in the development of large cities), they are 18 percent cheaper than brick houses.

But now let us take such a most important indicator as labor productivity. Given the acute shortage of regular labor forces in many regions of the country, especially the North and the Far East, this indicator acquires particular importance. The comparison attests to the unquestionable advantages of the industrial methods. For example, at Moscow house building combines the expenditures of labor at the construction site of 9- to 12-stody large-panel houses were 6-8 man-hours per square meter of total floor space, while at brick houses with the same number of stories they were 22-25 man-hours. Three to four times more!

In large-panel house building the expenditures of labor are considerably less precisely at the construction site. The social significance of this factor is enormous. Construction is being transformed more and more into a sector of highly mechanized production, while the construction site is being transformed into an installation site, where only the assembly of items with a high degree of plant readiness is performed. And this means that the working conditions of the workers are being improved substantially.

The weight of the structural components of large-panel apartment houses is 30 percent less than that of brick apartment houses. This in turn leads to a decrease of transportation and installation costs and lowers the power-output ratio of construction.

Panel house building makes it possible not only to make up the deficit of manpower given our colossal amounts of construction, but also to shorten the period of construction of buildings as compared with brick buildings. A study of 3,260 projects in 35 cities showed that the average length of construction of five- and nine-story houses was: for large-panel houses--9-10 months, for brick houses--17-18 months.

All these comparative data once again convincingly confirm the correctness of the policy of developing and further improving large-panel house building.

Now about the quality of residential buildings. For many people the erroneous notion has formed that it is possible to build from panels only houses which are primitive both in their appearance and in their internal layout. Such a misconception is connected mainly with the initial period of large-panel house building, when the aspiration to create the most economical plans actually led to considerable architectural costs. But the modern plans of completely prefabricated buildings are by no means inferior to the standard plans for brick houses either in the spatial layout decisions or in the design and architectural decisions, and are often superior to the latter. As confirmation it is possible to cite the experience of Moscow house builders, who have assimilated the mass production of large-panel buildings with a greater number of stories than usual. As Comrade L. I. Brezhnev noted at the November (1979) CPSU Central Committee Plenum. this made it possible not only to reduce the expenditures appreciably, but also to improve the quality of apartments and the architectural appearance of houses.

In all the panel houses, which have been built according to the new standard plans, great living comfort is ensured and the apartments are conveniently laid out. However, it would be incorrect to compare a mass development with individual buildings made of brick, which are built according to individual plans. Especially as such houses are still being built in violation of the requirements of the construction norms and regulations.

As to the quality of the construction and installation work, there has also been some improvement here, although far from all the buildings meet the requirements. This pertains equally to both panel and brick houses. Where the rules of technology are observed and proper monitoring is implemented in all the operations, such shortcomings as the soaking and freezing of walls, joints, lintels and jambs, windows and doorways and roof leaks were eliminated a long time ago. Incidentally, similar defects, as well as other significant flaws were also noted earlier in buildings made of brick.

But when it came to constructing buildings out of traditional materials, no one linked these shortcomings with their specific nature. No doubts arose that the defects were a result of flaws in the work. But when the talk touches upon completely prefabricated construction, many people fond of shifting their own guilt and negligence in work onto "the specific nature of panels" appear. It goes without saying that it is a convenient cover for the slipshod worker! Here they also count on the leniency of state commissions, which, in spite of all the prohibitions of directive organs, at times accept houses with substantial flaws in workmanship. The cost of eliminating such flaws in workmanship annually is approximately 100 million rubles. Of course, such a practice must be halted in the strictest manner.

The arguments advanced in defense of the industrial methods of building modern housing by no means signify that brick construction must be rejected entirely. It is also necessary to develop and improve the production of traditional materials. Estimates show that in 1985 the demand for brick will already be 57 billion bricks as against 44.7 billion produced by industry in 1978. Brick house building in rural areas has especially justified itself. Therefore, along with the development of the base of completely prefabricated house building USSR Gosplan, the ministries and departments and the councils of ministers of the union republics have to examine seriously the questions of modernizing the existing and building new highly mechanized plants for the production of brick.

The policy of industrializing construction also predetermines the development of other effective directions. Modular house building, and especially block-panel house building, should first of all be grouped with them.

Undeservedly little attention is being devoted in our country to monolithic house building. Its share in the total amount of construction not only is not increased, but is even decreasing somewhat. In housing construction this is occurring primarily because the industrial production of light, mobile concrete pumps, low-duty jiggers and packaged-unit, plant-produced centering has not been organized, extremely too few mixer trucks and plastering machines are being produced.

In order to further improve the industrial methods of constructing buildings a new step has to be taken in the development of the production base and the construction workers have to be supplied with high quality materials, including those which are necessary for the production of effective light-weight components. USSR Gosplan and the appropriate ministries and departments need to take into account the needs of the construction workers for new materials and to provide for the creation in the immediate future of the appropriate capacities for their production.

Our architects have to search more persistently for new, more interesting and bold planning decisions of standard buildings made from prefabricated components. As experience shows, houses made from panels can be built not only quickly and economically, but also on a high architectural level.

Experience of Ul'yanovsk

Moscow STROITEL'NAYA GAZETA in Russian 7 Mar 80 p 2

/Article by Yu. Akvilyanov, chief of the Construction Department of the Ul'yanovskaya Oblast Committee of the CPSU: "A Year Ahead of Time"/

/Text/ STROITEL'NAYA GAZETA has been following closely the competition according to the principle of the Workers' Relay Race, which was launched in the construction of House Building Combine No 2 in Ul'yanovsk. The cooperation of related industries helped to put the first section of this enterprise into operation a year ahead of time. How is the new, highly effective form of comprehensive competition being developed?

Every week I go to Zavolzhskiy Rayon of Ul'yanovsk, where House Building Combine No 2 is being built. Not without a sense of deep satisfaction do I walk about the roaring shops of the new enterprise. For more than two years ago the steppe was here, the first piles for the foundation were being driven, while today the plant is in operation. When in February 1978 the builders of House Building Combine No 2, having raised the banner of the Workers' Relay Race, decided to ensure the start-up of the first section of the new house building complex a year ahead of the planned and standard deadline, there were enough skeptics. However, the comprehensive competition of related industries ensured success. On the eve of the new year the state commission accepted for operation with a rating of "good" the first section of the combine with a capacity of 70,000 m^2 of housing a year.

It is difficult to underestimate the importance of this event for the further development of Ul'yanovsk. The placement into operation of the first section of the new combine increased the capacities of industrial house building in the city by one-third, while after the placement of its second section into operation with a capacity of 110,000 m^2 of housing a year they will increase nearly twofold.

The Ul'yanovsk builders, who are working in the city where Vladimir Il'ich Lenin was born and spent his young years, are honorably carrying out the special work effort. The brigades of builders of B. Shalenin and Yu. Avlasenko, the brigades of installers of S. Pugachev, A. Melekhin, S. Kurylev, V. Lukin and many others have especially distinguished themselves. The shock work of individual collectives has become especially effective owing to the fact that the party organizations of the Main Administration for Construction in Ul'yanovsk and the city were able to implement in practice the main principle: "From mutual claims to mutual assistance and support!"

It was not possible in a single day to see to it that it became the standard of interrelations with associates for each worker, brigade leader and manager. For example, over the years by no means ideal interrelations have formed between the clients, designers, builders, installers and operators. At first one had occasion often to observe how one attempted to endanger another and to conceal his own miscalculations with the carelessness of his associate.

Much effort was needed to achieve the creation of the appropriate rear services of the house building combine. And then the base of the Administration of the Supply of Complete Sets of Production Equipment was put into operation at the same time as the main building of the plant, the production area of whose shops is 55,000 m^2. This year the construction of the base of mechanization for 250 construction machines and 90 specialized vehicles, shops of keramzit gravel and carpentry items will be completed.

They also insisted that two additional bays be built on to the main building of the plant. In one it is planned to organize the output of parts of so-called small architectural forms, the other will be a kind of experimental shop, in which new components and elements of the diverse finishing of facades will be developed. Incidentally, the Ul'yanovsk house of series 90 does not copy its colleagues, which are being built in other cities. The Central Scientific Research and Planning Institute of Standard and Experimental Planning of Housing has made a number of adjustments in it.

The role of competition according to the principle of the Workers' Relay Race can be traced especially clearly from the example of the interrelations with designers. At first they were in no particular hurry to issue the documents, they gave any wishes of the builders and future operators a hostile greeting. But when State Planning Institute No 6 became a participant in the "relay race," the attitude began to change. Representatives of the Ul'yanovsk workers visited the institute more than once. Institute Director V. Petrov and Chief Engineer V. Peredbogov repeatedly come to Ul'yanovsk. The drafting of the documents for House Building Combine No 2 was placed under special control by the board of directors of the institute and its public organs. Chief engineer of the project V. Sennov with a group of designers was here for months, carrying out supervision as the author.

Here is just one example. In connection with the fact that two additional bays had appeared, it was necessary to design the heated passage from the administrative and general building in a new way. The designers proposed to make it out of precast reinforced concrete. However, at first standard components were not called for, their production required a lot of time. Lenin Prize Winner A. Myagkov, chief of the Ul'yanovsk Administration of the Volgostal'konstruktsiya Trust, proposed a different solution. Usually in such cases the designers try with all their might to reject any interference in the plan drafted by them. Here this did not happen. I remember that the proposal was made on Friday, and on Monday V. Sennov had already agreed to the new version.

Such an atmosphere also promoted the creative activity of the designers themselves. A number of shops and production lines were designed very rationally, the most modern equipment was used. As a result the labor-output ratio of the parts according to estimates will be reduced by 30 percent as compared with the model plant, the consumption of electric power will be reduced to one-half, the consumption of cement--by 20 percent, and the production cost of a cubic meter of items--by 6-8 rubles.

The interrelations between the builders and the equipment installers also changed appreciably. Previously, the brigade of concrete workers would turn over the seatings to the installers, but the latter would not accept them. Not everything was done, they said, according to the plan. But on inspection it turned out that, for example, of the 26 seatings 24 had been made correctly, the units can be installed on them, while in the meantime the others can be fixed. But the installers stick to their guns. Now in such cases the brigade leaders, line engineering and technical personnel, builders and installers jointly find rational solutions. The installers from the Ul'yanovsk Administration of the Neftekhimmontazh Trust, which Yu. Davydov heads, were the first to improve their methods of work.

The production of nonstandard equipment and accessories has been assigned to 30 plants of the city and oblast. The collective of the Ul'yanovsk Remstroydormash Plant of the USSR Ministry of Construction, in particular, coped splendidly with the orders of House Building Combine No 2. In all 90 enterprises of 80 cities of the country delivered equipment for House Building Combine No 2. Many job authorizations were received for the third and fourth quarters, which, of course, did not suit us. We sent letters to them, sent delegations in order to expedite delivery. The majority of collectives found reserves for the early filling of our orders.

At one time the Voronezh Machine Repair Plant No 8 seriously held us back--it did not have cast material and chains. At that time the Ul'yanovsk workers in turn sought means to help them. In all 30 welders, lathe operators and milling machine operators were sent of Voronezh. The filling of the order was expedited.

Both our experience and the practice of other cities show that now practically everywhere the solution of problems connected with the production of nonstandard equipment has become mainly the concern of local organs and affiliated enterprises. For the same Ul'yanovsk House Building Combine No 3 of the 4,600 tons of such equipment and accessories in 1979 only about 600 tons were received centrally, the remainder was produced locally. But must it be proven that industrial enterprises do not have spare means and such orders are filled by means of greater overloading of the forces and this costs three times more? It seems that this situation must be changed, and as quickly as possible. It is necessary to provide for the development of specialized enterprises for the production of accessories and equipment for industrial house building.

And the second, chronic misfortune, which was also discussed at the November (1979) CPSU Central Committee Plenum, is the imbalance of the plans with the supply of material resources. The USSR Ministry of Construction included in the plan in 1980 the placement into operation of the second section of House Building Combine No 2. According to the standards for the production of accessories and nonstandard equipment 3,300 tons of metal are needed, but only 500 tons were allocated. But where are we to get the rest? Hence, it will be necessary to take from the reserves intended for other purposes. But is this really correct?

The job authorizations for the lacking equipment, including vibroresonance units, were issued only for the third and fourth quarters. Such dates cannot satisfy the Ul'yanovsk workers. Therefore, their delivery will have to be expedited, which will divert the managers of the construction project from the performance of their own immediate duties.

The bureau of the oblast party committee approved the socialist obligations of the builders of House Building Combine No 2 and its collective on the early (by 7 November) bringing up of the enterprise to full capacity. The competition of associates has now been launched under the motto "Let us build ahead of time--let us assimilate ahead of time." They began to form the collective of House Building Combine No 2 last year. Two houses--400 apartments--were allocated for it. The first houses, which the combine will build, will also be turned over to it for tenancy by its own workers. Today the collective of the combine is taking part in the installation and start-up of the equipment. Owing to this the acceptance of the production lines and their assimilation are taking place simultaneously. The installation of a house of series 90 has begun. The January plan on the production of parts was exceeded. In February the output of components, according to estimates, will increase more than twofold. The collective of the new enterprise is worthily continuing the Workers' Relay Race begun by the builders of the combine.

Estonian Housing Construction

Tallinn SOVETSKAYA ESTONIYA in Russian 10 Feb 80 p 3

/Article by Chief of the Housing and Municipal Services Department of the Estonian SSR State Planning Committee Reyn Khendrikovich Pukk: "There Have Been More New Settlers"/

> /Text/ At the request of SOVETSKAYA ESTONIYA correspondent Ya. Tolstikov, Chief of the Housing and Municipal Services Department of the Estonian SSR State Planning Committee Reyn Khendrikovich Pukk tells about housing construction in the republic.

First a few figures. During the past four years the rate of housing construction being carried out in the republic (state, individual, cooperative and others) has been characterized by the following figures.

In 1976 730,000 m^2 of total living space (according to the plan 719,000 m^2) were put into operation, in 1977--780,000 m^2 (according to the plan 730,000 m^2), in 1978--745,000 m^2 (730,000 m^2), in 1979--740,000 m^2 (745,000 m^2). The plan for this year is 745,000 m^2 of total living space, and we are fully confident that this plan will be fulfilled. As we see, the rate of housing construction is higher than that specified by the five-year plan.

We annually put into operation on the average 13,500 apartments--this means two-room apartments with a total floor space of 55 m^2.

In all during the past four years of the five-year plan we built and put into operation 2,995,000 m^2 of housing.

It is interesting that of the 750,000 m^2 of housing, which are built on the average annually, 450,000 m^2 fall to state housing, which, as is known, is given to the Soviet individual completely free of charge with a minimum rent, which does not even cover the expenditures on the operation of available housing.

Cooperative construction holds second place in amount--approximately 1,200 apartments are put into operation annually, and then follows individual construction.

The following figure is also interesting. On the average in a year 60,000 people living in the republic improve their housing conditions, that is, they move into newly built houses or into improved apartments, which were put into operation earlier.

On the average at the end of 1980 each citizen of the Estonian SSR, who lives in a city, will have 16.2 m^2 of total living space. It is worth emphasizing that this is the highest indicator among all the union republics of the country.

The Tallin House Building Combine is making the greatest contribution to the increase of available housing--approximately 200,000 m^2 of housing annually. Then come the Tartu House Building Combine, Estkolkhozstroy and general construction trusts.

Here, of course, the following question is natural. Fine, we are building a lot, the total available housing here is quite great, but I, a given specific citizen, who has been waiting in line as one of the most needy, for several years now have not been able to improve my housing conditions. And these satisfactory figures, this citizen might say, are by no means a comfort to me.

In this connection I would like to note the following.

The so-called front liners are those who have less than the established standard of square meters of housing per family member, who live in basement rooms and ill-repaired houses, young specialists, veterans of World War II and several other categories. It should be emphasized that the number of "front liners" in the republic is steadily decreasing. During the past eight years their number has been reduced by 20 percent. And this process is taking place at an increasing rate.

About rural construction. It is being carried out here mainly by organizations of the Estkolkhozstroy Association. Annually approximately 100,000 m^2 of housing are put into operation. They are one-, two- and three-story apartment houses, as well as one-apartment houses, that is, individual homes. Approximately 70 of the latter are built annually. The plan of the current year of 1980 is 150 individual homes. The increase, as we see, is substantial, and still we believe that individual construction is being developed slowly in the republic. In this connection it is worth mentioning the decision of union organs on the further development of the construction of individual homes and the attachment of personnel to the countryside.

In accordance with this substantial benefits are being granted to individual builders. Thus, for example, the down payment of the future homeowner has been reduced to 20 percent of the total cost of the housing and the outbuildings. The state issues the remaining 80 percent as credit, which is repaid over 20 years after the completion of construction. On the decision of the board of the kolkhoz and the management of the sovkhoz the down payment can even be reduced to 10 percent of the total cost of construction. The managers of farms and the very residents of rural areas so far, apparently, have not taken these benefits into sufficient account. And therefore, in spite of the comparatively great opportunities of the organizations carrying out construction in the countryside, the growth rate of the construction of individual homes for the present remains low.

I would like to add that the standard of the maximum total floor space of an individual home has now been increased from 110 m^2 to 130 m^2, the living space of an individual home can also be correspondingly greater.

The Estonian SSR Government adopted in September 1979 the decree "On the Further Improvement of Individual Housing Construction in the Cities of the Republic." The decree was not adopted by chance. The point is that in recent years individual housing construction in cities has been developed slowly. The Tallin Executive Committee, for example, remained entirely aloof of this work, for many years building plots were virtually not allocated and so on.

Now the situation is being corrected. For residents of the republic capital, who want to start the construction of an individual home, 400 plots are being allocated in the region of the settlement of Saue. During the first quarter of 1980 the enterprises and institutions of Tallin should submit to the rayon soviet executive committees lists of those who wish to begin housing construction. It is important to note that the allocation of plots will now be carried out at the place of work of the builder, in accordance with the decision of the administration and the local trade union committee.

Following the region of Saue plots for Tallin residents will be allocated in the region of Niytvyal'ya (near the city of Keyla), the settlements of Saku, Arukyula, Raasiku and Lagedi and the village of Valingu. All these places are located in the immediate vicinity of the city and are linked with it by railroad or a bus line. In all not less than 2,000 plots will be allocated here. Similar measures are also being implemented in Tartu, Pyarnu and other cities.

The decree I mentioned recommended the creation of collectives of individual builders. The enterprises and institutions, at which the builders work, are obliged to give the latter assistance in the purchase and transportation of construction materials, as well as tools. The preparation of the site for construction--the laying of main roads, the construction of substations and artesan wells--will be carried out, as a rule, at the expense of state capital investments. Architects of the corresponding cites and rayons will provide the individual builders with services for a fee on the technical supervision of the construction. The state is allocating some credit to individual builders.

The residents of Pyarnu will be interested in learning that the decision has already been made to build in this city a house building combine, which is intended for the construction mainly of individual houses. It is the policy that everyone who wants to can purchase an individual home.

It is also worth noting that individual construction is not only assistance in solving strictly the housing problem. In the yard--I will mention that its total area in the city is 600 m^2 (in the countryside it is up to 1,500 m^2)--the owner, as a rule, lays out a fruit orchard, builds a hothouse and grows vegetables. The surpluses of these products are sent to the market.

Now a few words about the further development of urban construction. It is well known that the expansion of the Tallin and Tartu house building combines is now under way. As a result houses of a new, improved design will begin to be built, their types will be more diverse and the total amount of housing construction will increase somewhat.

And there is another significant detail. After the expansion of the Tallin House Building Combine some capacities of the organizations of Tallinstroy will be reoriented from housing toward the construction of stores, schools, kindergartens, so that the new regions of development are built comprehensively, with allowance made for all the personal and social needs of the population.

A change in the structure of apartments for the more complete satisfaction of the needs of the population is stipulated in the plan for the 11th Five-Year Plan. Studies have shown that here for the present too few one-room apartments are being built, in the future their number will increase. The construction of dormitories for unmarried workers and young specialists will be curtailed (this does not mean student dormitories). The stress will be placed on the expansion of the construction of apartment houses consisting mainly of one-room apartments, where unmarried people will also obtain housing. Incidentally, a simple estimate shows that a one-room apartment, which is intended for habitation by one person, costs the state only 1,000 rubles more than a place in a dormitory, when two to three people live in one room. I said "only 1,000 more." But if you multiply this amount by the total number of apartments.... All the same, the state will agree to these additional expenditures--in the interests of the Soviet individual.

So far we have spoken all the time about new construction. Here the following figure, obviously, will be interesting. Annually 3.5 percent of the housing added to the total available housing which the republic has at its disposal is new housing. Hence, 96.5 percent is existing housing. Some of these houses require repair. Starting this year, the capital repair of available housing will be regarded as an official plan assignment, more capital is now being allocated for repair, the capacities of repair and construction administrations are being consolidated.

> In short, as we see, the right of the USSR citizen to housing, which is recorded in the Constitution, is being implemented in practice in our republic, as well as everywhere in the country.

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DEVELOPMENT OF LENINGRAD, ENVIRONS OUTLINED

City of Leningrad

Leningrad STROITEL'STVO I ARKHITEKTURA LENINGRADA in Russian No 2, Feb 80 pp 2-4

[Article: "A Strong Finish to the Five-Year Plan"]

[Text] The final year of the 10th Five-Year Plan has begun. Like all Soviet people, Leningraders look to the future with optimism. The working people of the city and oblast fully approve of the decisions of the November 1979 Plenum of the CPSU Congress and have adopted them as absolute guidelines. They see their duty as increasing their contribution to the national struggle to continue raising production efficiency and the quality of all work. The speech by Leonid Il'ich Brezhnev at the Plenum of the CPSU Central Committee and the decisions of the sessions of the USSR Supreme Soviet and RSFSR Supreme Soviet which ratified the plans for economic and social development and the state budget of our country and the Russian Federation for 1980 have greatly boosted the people's initiative.

In the first four years of the 10th Five-Year Plan national income was 323 billion rubles more than in the same period of the preceding five-year plan, industrial output was 600 billion rubles greater, and the gross output of agriculture rose 40 billion rubles. Capital investment in the national economy in the first four years exceeded 500 billion rubles. Leningraders made a notable contribution to these achievements.

The collectives of construction and planning organizations have worked hard for the comprehensive plan of economic and social development of Leningrad and Leningrad Oblast. The third unit at the Leningrad Atomic Power Plant imeni V. I. Lenin began producing industrial current, and additional capacities in industry and agriculture were launched and are working on the five-year plan. Progress has been made in realization of the social part of the comprehensive plan; since the beginning of the five-year plan buildings with a total of about 12 million square

New Residential Developments in Moskovskiy Rayon

meters of space have been built in the city and the oblast, enabling more than 600,000 Leningraders to improve their housing conditions. Preschool institutions for 66,000 children have also been built and the physical facilities for general and vocational-technical education, public health, and the service sphere have been strengthened.

In the concluding year of the five-year plan the working people of the city and oblast must resolve complicated problems to realize the comprehensive plan of economic and social development. The draft plan was approved in general at a plenum of the Leningrad Oblast Committee of the CPSU and adopted, after discussion, at sessions of the city and oblast Councils of Peoples Deputies.

The decree of the party Central Committee entitled "The 110th Anniversary of the Birth of Vladimir Il'ich Lenin" and the preparation for and conduct of elections to the RSFSR Supreme Soviet and local Soviets were powerful new stimuli to labor and political enthusiasm in Leningrad, as elsewhere in the country. Workers of the city and oblast, having gone on labor watch at the initiative of five Leningrad enterprises and organizations which bear the name "Revolutionary Guides," are making every effort to make the historic decisions of the 25th CPSU Congress a reality.

The 12th session of the Leningrad City Soviet of Peoples Deputies, 16th Convocation, has been held. This session reviewed the questions of the comprehensive plan of economic and social development for Leningrad in 1980, progress with fulfillment of the 1979 comprehensive plan, the Leningrad budget for 1980, and execution of the budget for 1978.

Deputy K. I.Labetskiy, deputy chairman of the Executive Committee of the Leningrad City Soviet and chairman of the planning commission, presented a report on the first question. The second question was covered

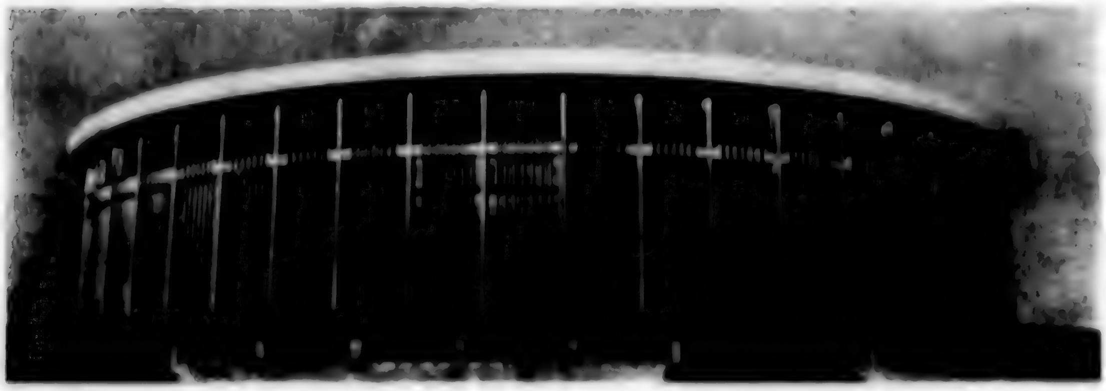
The Primorskaya Metro Station, New Last Year

by deputy V. N. Lomachenko, head of the finance division of the Executive Committee, and deputy N. I. Polyakov, chairman of the standing budget planning commission, who presented a co-report.

The two reports, the co-report and the ensuing discussion emphasized the importance of the issues under consideration. The plan of economic and social development for the concluding year of the 10th Five-Year Plan was viewed in light of the decisions of the November 1979 Plenum of the CPSU Central Committee and the sessions of the USSR and RSFSR Supreme Soviets. The deputies spoke of the enormous mobilizing significance of Comrade L. I. Brezhnev's speech at the Plenum of the CPSU Central Committee. It was also observed that the plenum of the Leningrad Oblast party committee has generally approved the draft of the comprehensive plan of economic and social development of the city and oblast.

The statements noted that thanks to the broad scope of socialist competition to celebrate the 110th anniversary of the birth of V. I. Lenin in a worthy fashion and the heroic labor of Leningraders in 1979, a significant new step was taken toward realization of the comprehensive plan for economic and social development of Leningrad. Since the beginning of the five-year plan 612 million rubles of output above the plan has been sold. Numerous models of progressive new technology, electric machines, and power equipment have been manufactured ahead of schedule, as have highly productive mechanisms, instruments, and other devices, and cultural-domestic and household goods. The increase in volume of industrial output has been achieved primarily by raising labor productivity.

Last year plans for the production of various local building materials, streetcars, elevators, and radiators and conductors for heating systems were overfulfilled. The volume of work to build up the city's heat energy base virtually doubled. Necessary steps were taken to improve



The General Purpose Sports Hall, New Last Year

the hauling and storage of agricultural output. The preparation of projects for the Olympics is being completed. About 50 million rubles worth of construction for environmental protection structures was incorporated.

The volume of capital investment last year was almost 1.7 billion rubles, which is significantly more than the assignment envisioned in the five-year plan. A significant contribution was made to solving important social problems. During the year 32 kilometers of new streetcar and trolley lines were laid. Residential buildings with a total usable area of 2,284,000 square meters were built, bringing the four-year total to more than 9.4 million square meters. Eleven general educational schools, new vocational-technical school complexes, and preschool institutions for children were put into use. The deputies emphasized that all these achievements were based on the enormous constructive work of employees in all economic sectors, of labor collectives, party organizations, local Soviets, standing commissions, and deputy groups.

At the same time it was observed that planned goals for certain indexes were not met. Various rayons and enterprises did not accomplish their assignments for increasing the volume of industrial production and for growth rate of labor productivity. There are significant shortcomings in the work of construction organizations, which did not incorporate capital investments in some sectors.

Leningraders now face new, even more complex challenges. The plan for economic and social development of the city envisions a 4.4 percent increase in volume of production in the coming year and a 3.8 percent rise in labor productivity. Plans call for producing 3,200 large electric machines, more than 3,000 large metal-cutting lathes, and 200 subway cars. The rolling stock of urban passenger transport will be enhanced by delivery of 160 streetcars, 100 trolleys, 945 buses, and 1,400 taxi cabs. The number of telephones installed in the city is to be increased to 1 million.

The Leningrad main construction administrations are expected to introduce residential housing with a total usable area of 2 million square meters, including 360,000 square meters with the capital of housing construction cooperatives. The primary rayons for new housing construction are Vyborgskiy, Kolpinskiy, Krasnogvardeyskiy, Krasnosel'skiy, Nevskiy, and Frunzenskiy. In addition, capital repair is planned for residential buildings with a total area of 407,000 square meters.

Plans also call for the construction of nine general educational schools, two vocational-technical schools, 41 preschool institutions for children, hospitals with 2,831 beds, polyclinics capable of 4,036 visits, eight public catering enterprises, 10 domestic service enterprises, movie theaters with 1,100 seats, and storage facilities for potatoes, vegetables, and fruit. A total of 26 million rubles is allocated to build structures to protect Leningrad against floods. About 32 million rubles is allocated to build the Southern Central Heat and Electric Power Plant. Large appropriations are envisioned for laying water, gas, and heat grids, sewage structures, and streetcar and trolley lines.

As observed at the session, such an intensive program will demand that all efforts be concentrated on insuring continued dynamic and proportional development of production, and consistent implementation of the policy of raising efficiency and work quality on the basis of developing socialist competition under the slogan "From high quality by each individual to highly efficient collective labor!" The executive committees of the rayon Soviets, main administrations, administrations, and divisions of the Executive committee of the Leningrad City Soviet, and associations and enterprises of the ministries and departments must work out and implement steps to fulfill the plan assignments, which should be considered minimum requirements. Special attention was devoted to the need to be guided by the decree of the CPSU Central Committee and USSR Council of Ministers entitled "Improving Planning and Strengthening the Impact of the Economic Mechanism on Raising Production Efficiency and Work Quality."

It was suggested that the planning commission and executive committees of the rayon Soviets look for internal reserves primarily in the efforts of enterprises and organizations of ministries and departments to maintain current rates of construction of nursery schools, actively enlist enterprise capital to build public health institutions, and give greater attention to solving the problem of evening out the availability of cultural-domestic facilities in the various rayons.

The number of projects under construction at one time has been reduced by one-third in the current five-year plan and the number of new starts cut almost in half. The 1980 plan reinforces this trend. This will make it possible to concentrate efforts on quickly introducing those very capacities that will insure an increase in the production of the most important types of output.

The plenum of the Leningrad Oblast CPSU Committee talked about the fact that, according to the most modest calculations, at least 6 million square meters of housing and more than 1,000 cultural-domestic facilities could be located in developments already built. The Main Administration of Architectural Planning was commissioned to prepare appropriate proposals.

The problem of economy measures at enterprises, construction sites, and in the municipal system was viewed at the session as a challenge of primary importance. In some locales little attention is given to reducing fuel and electricity expenditures, obsolete equipment is not replaced, the heat insulation of buildings and structures is not improved, and no efforts are made to establish fuel reserves.

The deputies noted in their talks that the plan for economic and social development of the city in 1980 aims to resolve the basic problems of continued development of industry and the municipal systems, raise the standard of living of the working people, and improve work in the sphere of services and social security. This is one more convincing demonstration of the constant concern shown by the party and government for the Soviet people. The city Soviet has ratified the Comprehensive plan of economic and social development of Leningrad for 1980. It ratified the Leningrad budget for 1980 and the report on execution of the 1978 budget.

The deputies expressed their firm confidence that, under the leadership of the Leningrad party organization, the workers, engineering-technical personnel, scientists, specialists, and all working people of the city will insure absolute fulfillment of the assignments of the comprehensive plan of economic and social development of Leningrad for 1980 and make a worthy contribution to nationwide preparations for the 110th anniversary of the birth of V. I. Lenin and the 26th Congress of the Communist Party of the Soviet Union.

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Leningradskaya Oblast

Leningrad STROITEL'STVO I ARKHITEKTURA LENINGRADA in Russian No 2, Feb 80 pp 4-5

[Article: "Leningrad Oblast"]

[Text] The decisions of the November 1979 Plenum of the CPSU Central Committee and sessions of the USSR Supreme Soviet and RSFSR Supreme Soviet and the principles and conclusions presented in the speech of

Comrade L. I. Brezhnev at the Plenum of the CPSU Central Committee have been received by the working people of Leningrad Oblast as a militant program of action. This thought was stressed in all statements at the 12th session of the Leningrad Oblast Soviet of Peoples Deputies, 16th convocation. This session discussed the questions of the comprehensive plan of economic and social development of the oblast in 1980 and progress with fulfillment of the comprehensive plan of economic and social development in 1979, the budget for Leningrad Oblast in 1980, and execution of the 1978 budget.

Deputy V. I. Mashovets, first deputy chairman of the Executive Committee of the Leningrad Oblast Soviet and chairman of the planning commission, reported on the basic issue. The second question was treated in the report by deputy V. I. Parotikov, head of the oblast financial division, and the co-report of deputy Yu. S. Markov, chairman of the standing budget planning commission.

The reporters, co-reporter, and participants in the discussion, considering the draft plan with due regard for the criticisms and proposals expressed at the plenum of the oblast CPSU committee which basically approved the documents, summarized the work done by working people in the oblast, discussed our successes and still-existing problems, and outlined steps to improve the work of the local Soviets and industrial, agricultural, construction, transportation, and other enterprises. Facts and figures were given to show that many labor collectives have fulfilled their socialist obligations for the chief indexes.

In the first four years of the five-year plan oblast industry has attained the growth rate set in the five-year plan for volume of production and performed its assignment for production of cultural-domestic and everyday household goods. Rural workers completed the state plan for purchases of agricultural crops, meat, and eggs.

A large program of capital construction has been carried on. Industrial objects have been built and turned over for operation. In the rural areas 34 dairy complexes have been built, and numerous facilities have been put into operation, including the first phase of the Sinyaviro poultry factory, the second phase of the Lomonosov poultry factory, replacement hog farms at the Druzhba, Spirinskiy, and Novyy Svet sovkhozes, hothouse combines, and storage areas for grain, vegetables, and mineral fertilizers.

Construction continued at an accelerated pace last year on the complex to raise and feed out young cattle at the Volna Sovkhoz, and reconstruction of the livestock units at the Dzhatiyevo Sovkhoz was completed. The second phase of the Pashskiy complex was turned over for operation. This permitted a significant increase in the number of livestock being fed out and the organization of labor, raised the level of a mechanized enterprise with industrial technology, and created the key prerequisites for high, stable weight gain.

It was observed at the session that in the first four years of the current five-year plan capital investment in all economic sectors of the oblast was 4.1 billion rubles. During this time 3.25 million square meters of total housing space was built and turned over for use, as well as 40 general schools and 120 preschool institutions for children. The material-technical base of public health and cultural and domestic service establishments was expanded considerably. Municipal services, transportation, communications, and social services continued to grow. A number of steps were taken to protect the environment and use natural resources rationally.

However, the session emphasized that the progress which has been made should not overshadow existing shortcomings. The managers of certain enterprises and organizations have not drawn the necessary conclusions from the demands of the November 1978 and July 1978 Plenums of the Central Committee. As a result, all opportunities for increasing the growth rate of production and labor productivity have not been put to use. The Slantsy Cement Plant, the Nevskaya Dubrovka Furniture Association, the Priozersk Pulp Plant, the Kommunar Production Association, and other enterprises are significantly behind plan indexes.

In their critical evaluation of agricultural results the deputies observed that the productivity of the dairy herd dropped last year. The transition to industrial feed production is going very slowly. New land is not being brought into use well at a number of sovkhozes. The Lenmelioratsiya [Leningrad Land Reclamation] Association did not fulfill its assignment for land reclamation construction, while the Lenoblsel'kozkhimiya [Leningrad Oblast Agricultural Chemistry] Association failed to fulfill its plan for liming acid soils.

Capital investment appropriated for the development of the material-technical base of agriculture is not being fully incorporated. The plan for introduction of fixed capital is frequently violated, particularly by trusts of Glavzapstroy [Territorial Main Administration for Construction in Western Regions of the RSFSR].

The executive committees of the local Soviets and managers of enterprises and organizations, it was observed in the speeches by the deputies and in the resolution of the session, are expected to work out and implement steps to insure unconditional fulfillment of the assignments established by the comprehensive plan of economic and social development of the oblast for 1980. The volume of industrial production should increase 7.2 percent over 1979, and labor productivity is expected to rise. A great deal of capital investment and material resources is being allocated for technical re-equipping and further expansion of industry and agriculture. New production capacities, dairy complexes, poultry factories, complexes to raise and feed out young cattle and hogs, hothouse combines, and vegetable storage facilities will be put into operation.

Plans call for the construction of a total of 850,000 square meters of total housing space, general schools for more than 8,000 children, nursery schools and daycare centers for 7,200 children, polyclinics capable of handling 750 visits, houses of culture and clubs for 8,000 people, and municipal housing and domestic service facilities.

The volume of capital investment in all sectors in the oblast is set at 1,144,000,000 rubles in 1980. It is envisioned that investment will be concentrated at start-up and key construction sites which are crucially important for the performance of state plans. The fourth power block at the Leningrad Atomic Power Plant imeni V. I. Lenin, additional capacities for the production of mineral fertilizer at the Fosforit Association, and a catalytic reforming unit at the Kirishinefteorgsintez Association will be put into operation.

It is essential, the session emphasized, to prevent dispersion of capital to many construction sites and to increase the accountability of planning organizations for timely delivery of plans and estimates. Considerable attention should also be given to problems associated with mobilizing internal reserves and economical use of material and financial resources.

All organizational work should aim at insuring fulfillment of the plan of economic and social development of the oblast, improving the economic mechanism and forms and methods of economic management and rational use of productive capital, and strengthening economy measures. The need to be more demanding of personnel and bolster performanc discipline was also discussed.

After ratifying the 1980 budget of Leningrad Oblast and the report on execution of the 1978 budget, the oblast Soviet expressed its confidence that the collectives of working people, guided by the decisions of the 25th CPSU Congress, will continue to broaden socialist competition to fulfill the assignments of the current year and the 10th Five-Year Plan as a whole ahead of schedule and celebrate the 110th anniversary of the birth of V. I. Lenin in a worthy manner.

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CONSTRUCTION

DINING FACILITIES OF LENINGRAD READIED FOR SUMMER OLYMPICS

Leningrad STROITEL'STVO I ARKHITEKTURA LENINGRADA in Russian No 2, Feb 80 pp 30-33

[Article by N. L. Andreyev, chief of the Main Administration of Public Catering: "Invitation to Dine at the Olympics"]

[Text] Signs of the approaching world sports event can be seen these days in all the public catering enterprises of Leningrad. The windows, halls, and rooms are decorated with the five interlinked circles, blue, black, red, yellow, and green: the symbol of the Modern Olympic movement. The mascot of the Moscow Games, Olympic Mishka, gives visitors a friendly smile.

Dictionaries and encyclopedias testify that the Olympics are not just a sporting event held once every four years, but also a creative competition among artists, singers, and dancers. Evidence has also come down to us from ancient times that a constituent part of the sporting holidays were contests among masters of the culinary art, who tried to show all their best cooking.

In my opinion, competition always helps true masters. That is why, on the eve of the Moscow Games, we have held several events that could be called, roughly speaking, public catering Olympics. These were inspections of the readiness of Leningrad food service workers to welcome our guests, a test of their skill and knowledge.

Russian dishes prepared on the basis of "ancient" recipes and "overseas" foods from Eastern, French, Italian, and other culinary traditions with excellent cakes, pastries, snacks, and desserts, and serving artistry -- it is all done like a true art, marked with irreproachable taste and based on outstanding knowledge of the job. In general the inspections showed that most of the collectives that are getting ready to receive Leningrad's guests are, to put it in sports terminology, in good shape,and striving to welcome the visitors with true Russian hospitality.

But what are the jobs that our enterprises must do?

According to the plan for receiving and lodging national sports delegations, Olympic officials and guests, tourists, and journalists coming to Leningrad for the 22nd Olympic Games, our city has a quota of 30,330 visitors at one time, including more than 19,000 foreigners. They will come to our city with the help of the Leningrad Association of VAO Inturist, the oblast Council on Tourism and Excursions, and the Sputnik Bureau of International Youth Tourism and will be lodged in the best Leningrad hotels, campgrounds, and dormitory complexes.

About 18 public catering enterprises (restaurants, cafes, and dining halls) will serve Olympic participants and tourists. They will be able to admit about 26,000 visitors at one time, so only 4,500 people will have to eat on a second shift. This is one of the most favorable indexes in food service not only for the 1980 Olympics but also, perhaps, for almost any Olympics held in recent decades.

Our primary objective, of course, is to provide the best service. What has been done and is now being done to accomplish this?

A great deal depends on the condition of public catering enterprises, so we have devoted special attention to rebuilding and fixing up existing restaurants, cafes, and dining halls and to putting new ones into operation. Since the beginning of preparations for the 1980 Olympics more than 40 million rubles has been allocated for this; this money continues to be incorporated by the construction workers of various subdivisions of Glavleningradstroy [Main Administration for Housing and Civil Engineering Construction in Leningrad], repair and construction organizations of the Main Administration of Public Catering, VAO Inturist, the Oblast Soviet on Tourism and Excursions, and the Sputnik Bureau of International Youth Tourism.

The athletes taking part in the Olympic soccer tournament will be served by a 220-place restaurant at the new Sportivnaya Hotel under construction at 34 Deputatskaya Street. By the time of the Olympics the restaurants at the hotels Kareliya,Gavan', and Oktyabr'skaya and at the motel and campground in Ol'gino will be open. Beautiful restaurant rooms at the new Pribaltiyskaya Hotel will also offer their services to guests of our city.

Repair work has transformed various well-known public catering enterprises such as Metropol', Moskva, Nevskiye Berega, Neva, Narva, Nevskiy, Baku, Brigantina, Kronverk, Volkhov, Vityaz', and Visla, and the restaurants at the Sovetskaya, Yevropeyskaya, Astoriya, Leningrad, Moskva, Mir, Repinskaya, and Rossiya hotels. At them virtually all furniture, some of the lighting fixtures, and portiers have been replaced, interiors have been fixed up, and the entryways and public use areas have been refinished. It is true that these jobs have not been completed everywhere. In many cases, unfortunately, construction workers have been slow in completing their work and this, naturally, makes the job of the public catering collective more difficult. They have to begin using the new rooms and equipment very quickly.

We should say a word about the equipment. As you yourself can understand, it has a large part in determining the quality of the food that is prepared. It speeds up the work of the cooks and makes it easier, which promotes more productive labor. Today as never before, obsolete trade and technical equipment is being replaced with the latest models. In the last two years our enterprises have received a total of about 2,500 refrigeration, mechanical, and heating units. This includes various kinds of electric ranges, ovens, general-purpose drive gears, meat cutters, potato peelers, bread and vegetable cutters, dough mixing and kneading machines, stands for heating or cooling cooked dishes, coffee makers, ice makers, and much more.

According to the plan worked out by specialists by LenNIIproyekt [Institute for Planning Housing and Civil Engineering Construction of the Leningrad City Executive Committee], the collective of the machine repair plant of the main administration has already produced several dozen Malyutka selling stands which look very good and are convenient to use. About 70 of these stands will be located on the upper rim of the S. M. Kirov Stadium during the competition, forming 14 unique selling centers to serve the crowd. Each of these centers will be formed of five stands. The first will sell "pirozhki" and cold drinks. The second will sell confectionary goods and juices. The third will offer various kinds of sandwiches, while the fourth sells assorted snacks and the fifth has candy and cigarettes. Similar stands will be located along the route of the crowd from transportation stops to the stadium itself and on the principal Olympic routes of Leningrad. In addition, work is in the final stages at the Kirov Stadium on the snack bars in the outer walls, a cafeteria for 120 people, a cafe-dining hall for 100 people, and several bars. These facilities will use disposable plastic dishes.

We have also taken care of full, timely delivery of food products and material-technical articles to all public catering enterprises. Specific suppliers for each type of food have been identified for each restaurant, cafe, and dining hall; this will permit optimal supply. All the enterprises have received attractive tableware, table cloths, and napkins with Olympic symbols.

Gas lights and distinctive gaslight emblems by which tourists will be able to locate service enterprises better are being put on the facades of our enterprises. Artists and printers have helped us produce the necessary printed products: menus, pasteboards, company signs, and posters.

The public catering employees who will serve the Olympic guests will receive a new specially made uniform. All waiters in Olympic service enterprises will have the same uniform. There will be variations in the uniform for headwaiters, coat check workers, doormen, clerks in culinary stores, and kiosk clerks.

This difficult international test will demand appropriate professional training from workers in the service sphere. We have naturally concentrated attention on this. A system was worked out for training workers in the common occupations, engineering-technical specialists, and clerical employees. Classes were begun as far back as 1976 and were conducted on "Olympic" programs. The most experienced workers studied on a 40-hour program, while most workers took the full course, figured for 320 hours. Workers in the service sphere must meet different kinds of people every day, and this means that they must be familiar with the fundamentals of psychology, ethics, and aesthetics and know foreign languages and much more. Enterprise directors and production managers are also improving their qualifications. The students at secondary culinary vocational school No 1, the public catering tekhnikum, the Institute of Soviet Trade imeni F. Engels, and several other Leningrad higher educational institutions are being trained in special programs to welcome our guests.

Only those specialists who pass the "Olympic exam" will be allowed to perform services. Each of them will receive a kind of passport, an individual certificate from the RSFSR Ministry of Trade which indicates that this person has gone through the appropriate training.

The public catering enterprises themselves must also be examined. All Olympic facilities will be carefully inspected and each one must meet the highest standards for equipment, arrangement and decoration of rooms, halls, entryways, bars, and work and storage areas, technical condition of installed equipment, availability of tablewear, dishes, linen, and uniforms, and full staffing. Interdepartmental commissions including representatives of the executive committees of the rayon Soviets of Peoples Deputies, the 1980 Olympics Organizing Committee, the sanitary-epidemiological station, the fire inspector, and the Main Administration of Public Catering have already begun the work of accepting enterprises. The first collectives to receive certificates of the right to serve the 22nd Olympic Games were those of the Nevskiy, Nevskiye Berega, and Neva restaurants and the Baltiyskaya Hotel.

I would like to dwell in more detail on how food service will be organized for guests of the 1980 Olympics. The system of "tour service" is the basis. Depending on the cost of the tour purchased by the tourist, he will be placed in a hotel or comfortable dormitory and eat at a restaurant, cafe, or dining hall. A menu has been written for each day that the guest stays in Leningrad. It takes into account the country from which the guest has come and the traditions of world culinary schools, as well as attempting to give the fullest possible acquaintance with our Russian national cooking.

I think that we will have something to surprise every visitor. Our menus include such dishes, for example, as Russian soup, Moscow fish, duck cooked in fruit, cucumbers stuffed with liver and eggs, steak cooked village-style, soup with homemade noodles and chicken, various kinds of "rassolinki" [meat or fish soup with pickled cucumbers], borshch, cutlets, and all kinds of baked goods. Many distinctive Leningrad dishes are also planned. Within the limits of the menu worked out on the basis of recommendations from the RSFSR Ministry of Trade, each enterprise adds its most popular holiday dishes.

During preparations for the Olympics all of the restaurants, cafes, and dining halls have held days and weeks devoted to the national cooking of the peoples of the USSR and foreign countries. About 100 seminars for cooks and candy makers in the city have been held. As a result of this, they have developed dozens of dishes and items which carry the Olympic symbol.

I must say that preparing the domestic catering service for the 1980 Olympics, which has been going on intensively in our city for at least the last two years, demands enormous efforts and raises many problems. These include management, social, organizational, teaching, and artistic-decorative problems. Therefore, the main administration drew up a comprehensive plan of practical steps and set up a special 1980 Olympics division which is expected to monitor the program of preparations to welcome and serve the guests of Leningrad and to carry out this program.

We must also observe that these matters are constantly monitored by party and Soviet agencies and the administrations of the service sphere and tourist organizations. The bureau of the Leningrad City CPSU Committee and sessions of the Leningrad City Soviet have made several reviews of preparations of the service system, including public catering. The basic questions have been decided, enabling us to organize work on the comprehensive plan more effectively. In addition, each month meetings are held with participation by management workers from the City CPSU Committee, the Leningrad City Executive Committee, VAO Inturist, the Oblast Council on Tourism and Excursions, the Sputnik Bureau of International Youth Tourism, the Main Administration of Public Catering, and other organizations. At these meetings problems of coordination of action are reviewed and decided on an operational basis and work already completed is checked.

In short, the enterprises of our system are already demonstrating adequate readiness to welcome the participants and guests of the 1980 Olympics. In the final stage of this large, exceptionally important project we will try to pass on the krow-how of the best collectives and specialists to everyone involved in Olympic service. We will continue to conduct seminars to improve professional knowledge and skill. Several contests are also planned.

We understand, however, that contests must not become a goal-in-themselves for the organizers or the participants. We view them as a means of improving the work of our entire public catering system. The collectives of the enterprises who have already been certified to serve the 22nd Olympic Games and those who will soon receive this certification must begin work in Olympic style right now and they should not stop when the games are over. After all, preparations for the world sports event in our country have been conducted, as everyone knows, under the slogan: "The Olympics Is Not Just for the Olympians!" To us this means that high quality service should be the norm for the working people of Leningrad and for the guests of our city.

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CONSTRUCTION

MOSCOW OLYMPICS CONSTRUCTION PROGRESS REPORTED

Olympic Village Progress

Moscow PRAVDA in Russian 25 Feb 80 p 8

[Article by V. Shvorina: "Every Convenience for the Guests: Preparing for the Coming Moscow Olympics"]

[Text] The Rehearsal Is Coming. The construction of all the buildings of Moscow's Olympic Village has been completed. Eighteen 16-story buildings of the residential zone have been accepted by the state commission. The furnishing of numerous structures in the international zone is nearing its end. The directorate, department store, and amenities buildings have already been presented to the state commission.

All the necessary services have been set up under the General Directorate of the Olympic Village: official ceremonies, reception and placement of the sports delegations from various countries, the organization of their leisure, meals, commercial consumer service, medical care, etc. During the time remaining until the opening of the Games the directorate is yet to conduct a unique dress rehearsal--the checking of the performance of each subdivision, the preparation in every possible way for the reception of the participants in the Olympics.

The Health Complex. The construction of the Village's sports facilities has been basically completed, and now installation operations and final adjustments are fully under way. The one large and two small sectors of the swimming pool are in operating condition: they are filled with water and undergoing tests. The finishing and installation of the furnishings of 10 saunas are under way.

In Zone A of the Sports Complex, which contains three all-purpose halls and medical and training rooms as well as 22 locker rooms, the finishing operations have been completed. Equipment has been installed and the ventilation systems are being completed.

Final work on flat sports facilities--the track and field stadium, three soccer fields, and outdoor volleyball and basketball courts, will be carried out in the spring.

"Hello, the Village speaking." The Village's automatic telephone exchange has started operating. In Moscow there has appeared a new telephone exchange beginning with the digits "437."

The automatic telephone exchange will place urban and local telephones at the disposal of the members of the various national sports delegations which will be living in the Olympic Village. And the delegation leaders will, upon deposit of a security payment, be enabled to use intercity and international telephone links. Telephone sets for international conversations will be installed in the premises of the Village's post office and the cultural center. Local telephones are being installed around the Village and in the hallways of the administrative buildings, while pay telephones are being installed in the international zone.

The Village's information and referral service will provide information in the English, French, Spanish, German, Portuguese, Japanese, Chinese, and Arabic languages.

The Key With the Bear Cub. The official opening ceremony for the Olympic Village will take place on 27 June--three weeks prior to the commencement of the Games. It will be staged with pomp on the Square of the Nations. On that day the heads of the Moscow City Executive Committee will present a symbolic key to the Village to the Chairman of the "Olympics-80" Organizing Committee. The key has been fashioned from metal. It is 40 cm long and contains the superscriptions: "Olympics-80" and "Olympic Village," and instead of a groove it is engraved with five interlinked rings, while at its other end it bears the image of a bear cub--the mascot of the Moscow Games. Symbolic keys will also be presented to heads of sports delegations and guests of honor.

The New Symbol-Emblem. The entire world by now is familiar with the emblem and mascot of the 1980 Olympics--the cute bear cub. And now the artist N. Fedosov, who has been working for 25 years in the field of applied graphics, has also designed a symbol-emblem of the Olympic Village.

The artist had even earlier made another contribution to the preparations for the 1980 Olympics--many are wearing on their chests his badge "Olympic Torch." Of definite interest also is the series of badges dealing with various sports that he had designed. Soon now there will appear pennants and badges bearing the symbol-emblem of the Moscow Olympic Village. Let us also note that a song has been devoted to it by the composer P. Chekalov and the poet V. Semernin.

For Any Taste. The canteen-restaurant building of the Olympic Village is readily visible from any point in the international zone. The bright turquoise panels crowning the roof of the three-story structure are readily visible even on overcast days. Final work on the interior of this building is now approaching its end. The installation of vending and other equipment provided by the Ortmann Company (German Federal Republic) has been completed. Furniture is being installed in the four dining rooms accommodating 1,000 persons each.

Meal service to the participants in the Games will be provided by employees of the Moskva, Ukraina, Pekin and Budapesht restaurants. Altogether, 15 Moscow restaurants operate the various food catering posts at the Olympic Village. A special a la carte menu has been prepared for the Olympic participants. It allows for the special features of various national cuisines. A 150-seat restaurant and a bar will be opened for guests at the cultural center.

Telephone, Postal Services

Moscow IZVESTIYA in Russian 21 Feb 80 p 6

[Article by V. Belikov: "Rapid and Reliable Communications"]

> [Text] Yet another Olympic facility has been built in our capital--on 20 February the international and intercity trunk dialing office, built with the participation of the Yugoslav production associations Iskra and Nikola Tesla, has been opened.

The most operational means of communication--the telephone, telegraph, and telex--are designed to disseminate as rapidly as possible throughout the world athletic news from Moscow, and to assure the necessary number of conversations between our capital and other cities. The automated telegraph center--a large building near the Central Telegraph Office--is by now ready.

Builders recently reported the completion of four automatic trunk dialing offices with a combined capacity of 40,000 numbers for the Olympics. The stadiums of the capital as well as existing and newly built hotels for housing Soviet and foreign tourists, and also all of the city's enterprises and organizations involved in the conduct of the Olympics, are being provided with additional telephone communications. In particular, the press center on Zubovskiy Boulevard needs many telephone, facsimile-telegraphy, and telex channels, since it is the headquarters of a corps of nearly 4,000 sports journalists who will gather there to report on the greatest athletic contests of our time.

Each day the Moscow postal service handles about 2 million letters. It is assumed that during the 1980 Olympics the load on the communications services will double owing to an additional influx of letters, postcards, printed matter, and parcels addressed to all four ends of the country as well as to many foreign countries.

The capital's postal service is getting ready for the arrival of participants and guests at the World Games. A new post office serving the nearby Olympic Village has been opened on Prospekt Vernadskogo.

In the spring the first section of the large international post office on the Warsaw Highroad in the capital should be completed. It also is expected to process a large volume of correspondence during the period of the Olympics.

As is known, at present more than 600 communications offices serve the Muscovites. At many of these offices premises are being renovated, and equipment and facilities are being replaced with their more modern and productive counterparts. The manufacture of uniforms for Olympic letter carriers and other experts is being completed.

Olympic Post Office Building on Prospekt Vernadskogo;
A room at the Automated Telegraph Office

Special mention is deserved by the distinctive patronage exercised by all the Union republics of this country over the communications enterprises located in the most populous districts of the nation's capital. Through the efforts of artists and decorators who specially traveled to Moscow from the capitals of the fraternal republics, these premises are being converted into elegant and originally decorated regional exhibits representing Kiev, Baku, Tashkent, Vil'nyus, and other large cities of the Soviet Union. The decor of the rooms, the decorative panels, and the original stamped ornaments all reflect the various ethnic styles. In view of the interest of the Olympic guests in the present way of life and historical sights of the various sections of our country, the communications offices will invite them to view on the premises short-feature films and color slides. The sales of badges and souvenirs are being organized.

Telecommunications Center

Moscow GOVORIT I POKAZYVAYET MOSKVA in Russian 24-30 Mar 80 p 19 [Moscow Edition]

[Interview with I. V. Ruzanov, First Deputy Chief of the Main Production-Technical Administration of the USSR Gosteleradio, by correspondent Boris Fomin; date and place not given: "The Olympic TV-Radio Center"]

> [Text] Late last year the state commission accepted for use the first section of the Olympic TV-Radio Center (OTRC), built in Ostankino across the street from the Television Technical Center imeni 50th Anniversary of the October Revolution. The builders of OTRC rank first in the socialist labor competition among the crews building Olympic facilities in the Nation's Capital.
>
> Below is the text of an interview between our correspondent and I. V. Ruzanov, First Deputy Chief of the Main Production-Technical Administration of the USSR Gosteleradio.

Question: Ivan Vasil'yevich, as the opening of the 1980 Olympics draws near, our readers more and more often ask in their letters what the new TV and radio center will be like and what progress is being made in completing it for the Olympics.

Answer: I remember that your weekly had already written about the OTRC one and one-half years ago. At that time only the construction of the external shell--or box, as the builders call it--was being completed and you could write only in the future tense about the main thing--the facilities to be housed in this building.

The completion of the OTRC will assure broadcasting the 22nd Olympic Games of 1980 at a fundamentally new technical level. Thus while during the previous Olympics, in Montreal, 9 television programs were broadcast, during the 1980 Olympics 20 color TV programs will be broadcast. This will assure tailoring of programs to the chief interests of viewers in particular countries or groups of countries. Another special feature: previously television companies transmitted to their countries' TV programs which upon arrival were recorded on videotape, edited, and then broadcast. The only exception was direct TV transmissions. During the Moscow Olympics these operations will be completely revised. Having ascertained the broad technical potential of the OTRC, foreign television companies decided to conduct the editing and all other "domestic" operations on the spot in Moscow, at the Olympic TV-Radio Center, and to transmit finished programs to their countries via the communication channels.

Before discussing the facilities and the specific possibilities of the TV-radio center, let me point out that the building housing is itself a highly interesting and unique structure, as well. Not just because this 5-story building with two equipment floors and a basement contains 1,200 premises of which 603 are of a technological nature, and is centrally heated, and has a water conduit system and sewage disposal system as well as an air conditioning system and an Artesian water supply system, but also because it was erected on the basis of quite a few novel design solutions. This refers to, e.g. new foundation blocks, a new type of protection for the facade, "floating" partition systems for TV and radio studios, clampdown floors, etc. In certain cases, e.g. in the construction of the roof and many premises, new building materials and advanced construction technologies were employed. All this enabled the builders to complete ahead of schedule the buildings of the OTRC and the Olympic telephone exchange, to build a refrigeration center, vehicular and pedestrian crossings, and a cable header, and to install numerous utility lines.

But in structures of this kind the installation and adjustments of technological equipment designed to achieve the intended volume of transmission of TV and radio broadcasts are the most important and most labor-consuming task. The ORTC will assure not only color TV programs with sound accompaniment but also the simultaneous transmission of 100 television commentaries and 100 radio broadcast programs to foreign countries.

The television section of the OTRC, which includes 22 TV studios, is the most complex of all. This section also includes three units of equipment for the production of completed programs, an information program equipment room, a unit with desks for 70 commentators and a kinescope screen, videotaping rooms containing 164 videorecorders, a TV filming room with 38 TV film projectors, and other equipment. There is also a central equipment room for the reception, processing, monitoring, and distribution of television signals.

The radio broadcasting section is more modest in scope but also completely equipped with the most up-to-date and intricate facilities. The section consists of 70 radio broadcasting units together with speech studios. In addition 30 specially equipped rooms are provided for editing phonograms. The reception of radio reports from the stadiums of Moscow and other cities, the distribution of signals among the various units, and the issuance of finished radio broadcasts will be handled via the central switching and distributing equipment room.

The modern television broadcast makes broad use of pre-filmed material that is subsequently incorporated into TV programs. Hence the OTRC includes a film production section consisting of a film processing division, 45 specially equipped film editing rooms, and several specially equipped soundtrack rooms. The section also includes two sound studios, operator booths, a monitoring laboratory, and equipment for developing and printing slides and photographic materials.

The international television image of the sports stadiums will be created by means of 255 stationary and 27 portable television cameras. The stadium will be equipped with seats for 1,200 commentators, 10 facilities for closed-circuit television and acoustic networks, sound recording rooms, internoise rooms, studios and premises for the holding of interviews, slow-replay videorecording equipment, and semi-stationary television and radio stations. Also operating in the stadiums will be 47 mobile four-camera television stations, 18 mobile three-camera videorecording stations, and 10 mobile videotaping stations. All these mobile television facilities have been developed and produced by Soviet industry.

Communications between the OTRC and the foreign countries will be handled via the Olympic Commutation Center (OCC) of the USSR Ministry of Communications. The 14-story building of the OCC is located not far from the OTRC. The OCC will receive video, audio, and service-communication signals (about 6,000 channels), not only from the Olympic facilities of Moscow but also from those of Leningrad, Tallin, Minsk, and Kiev.

As soon as the final construction work in a part of the premises of the new building was completed, the installation and adjustments of technological equipment were commenced. And I can unequivocally answer the question asked by your readers as to whether the OTRC will be completely ready before the 1980 Olympics open: yes, it will. I am convinced that this will happen, because, in particular, part of the equipment of the Olympic TV-Radio Center has already been tested and has, so to speak, passed its dress rehearsal.

Question: What about the Seventh Summer Spartakiad of the peoples of the USSR? After it had ended, some readers wrote us asking to describe the performance of OTRC equipment.

Answer: About one-third of the electronic capacity of the new Olympic TV-Radio Center began to function at the commencement of the Spartakiad. That equipment was used by foreign TV and radio companies. Television transmissions were carried out by Eurovision, the Japanese Asahi Company, and an American company handling transmissions not only to the United States but also to some other countries. And of course, our equipment was also used by Intervision, with a separate television program being destined for the GDR. As for radio and TV equipment on the spots where the games were held, during the Spartakiad 256 commentator seats were installed and mobile television stations of the Magnolia type were satisfactorily tested. It is worth noting that broadcasts of the Spartakiad contests were transmitted not only from the cities in which the Olympic Games will take place in 1980 but also from Vil'nyus and Kaunas, where basketball tournaments were held.

Moreover, toward the beginning of the 7th Summer Spartakiad of the Peoples of the USSR, 19 radio studios were readied, along with 5 programs editing rooms and the central switching room. This equipment was used by 15 radio companies to report from the Spartakiad to many foreign countries.

The dress rehearsal of the performance of equipment, conducted during the 1979 Spartakiad, served to check new equipment more completely, to detect weak spots, and to eliminate the "rough spots" natural for complex facilities of this kind. On the whole, all the equipment then put into operation performed normally, and the representatives of foreign companies gave high marks to the performance of the OTRC.

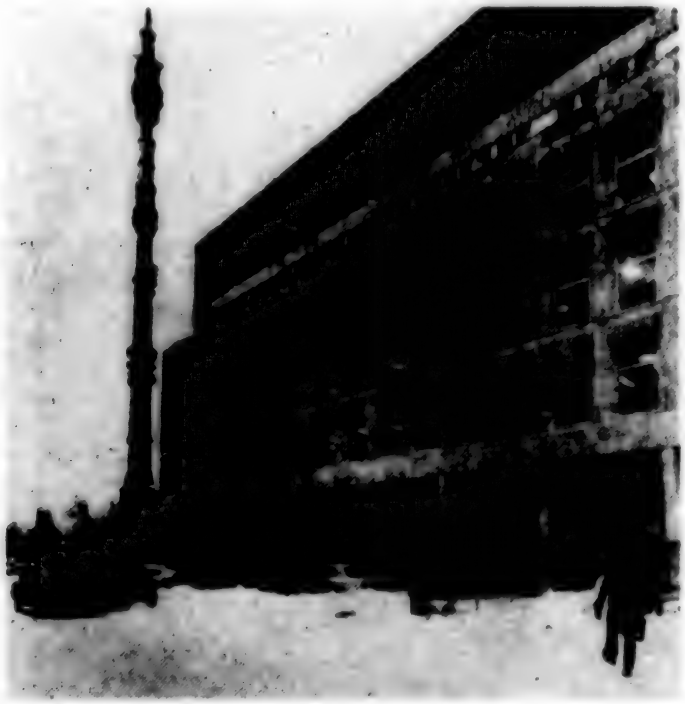
Question: A group of readers from Podmoskov'ye asked in their letter: "We read in PRAVDA that a large part of the TV-Radio Center was accepted by the state commission late last year. First, it is not clear to us how did that commission accomplish such a great task of approving highly intricate equipment installed in hundreds of rooms. Secondly, please explain why was the acceptance of the remaining part of the equipment, insignificant as it might be, postponed until 1980. After all there is not that much time left until the Olympics....

Answer: Initially, in measure with its readiness, all equipment was accepted for use by a working commission especially set up for this purpose. The inspection procedure was thorough and meticulous, and corresponding certifications were drafted and signed.

Toward the end of 1979 there came time for rendering an account, so to speak, to the last and final instance: the state commission. The commission had a membership of 30 drawn from among the officials and experts of the 1980 Olympics Organizing Committee, the Moscow City Executive Committee of the Council of Workers Deputies, the USSR Gosteleradio, various ministries, departments, and scientific research institutes. The commission accepted not only the TV and radio facilities and the building itself of the OTRC but also the Olympic Commutating Center, the equipment of a number of transmission stations and commentator facilities in the Olympic structures, and the mobile radio and TV equipment. As you can see, the volume of the commission's work was very large and so, in order to prevent delays of months in the work, seven subcommissions of highly qualified specialists were set up, each concerned with its own particular field and type of equipment of the TV-Radio Center, and with its own particular documentation.

The state commission operated and operates in accordance with an approved schedule specifying the studios and types of equipment to be presented for acceptance on particular days.

Only the acceptance of a small part of the equipment was postponed until the first few months of 1980. This concerns chiefly the equipment delivered at the very end of last year or early this year, such as recorders for the videotaping unit. It was inexpedient to install in advance equipment for commentators in the spectator stands of outdoor sports facilities. Last year electrical wiring for these sites was installed and now, once the snow disappears in the spring, the equipment itself will be installed and readied for use. The part of the overall volume of operations to build the TV-Radio Center that is currently being accepted by the state commission is insignificant, [illegible] it can be confidently stated that the workers and designers from the Television Technical Center imeni 50th Anniversary of the October Revolution will have sufficient time to master the complex whole of the facilities of the OTRC designed for use during the 1980 Olympics.



General view of the OTRC

1386
CSO: 1821

OLYMPIC CONSTRUCTION NEARS COMPLETION

Combined Construction Effort

Moscow STROITEL'NAYA GAZETA in Russian 21 Mar 80 p 1

[Text] The construction and modernization of facilities for the 1980 Olympics proceeds with the participation of the organizations of nine ministries, the crews of 33 main-contractor trusts of the Moscow City Executive Committee of the Council of Workers' Deputies, and also crews dispatched by the Union republics.

The Central Stadium imeni V. I. Lenin has been completely updated. The construction of the Druzhba Hall, the TsSKA [Central Army Sports Club] soccer and track and field complex, the bicycle racing track, the Dynamo firing range, the circular paved bicycle racing track, the archery ranges, the residential zone of the Olympic Village, and the TV-radio center.

On the area of 107 hectares the general construction work on all the facilities of the Olympic Village has been completed. Final work on the cultural center and the sports complex is reaching its end. During his visit here the President of the IOC Lord Killanin declared that he considers this to be the best of all Olympic villages in the history of the Games.

Killanin Visit

Moscow STROITEL'NAYA GAZETA in Russian 21 Mar 80 p 1

[Text] More than 100 days still remain until 19 July--the Opening Day of XXII Summer Olympic Games. But even now all the sports facilities for the planet's best athletes are in a high degree of readiness. The general construction operations have been completed and finishing, beautification and decoration operations are nearing their end. More than half of the 97 different Olympic facilities have already been accepted by the state commissions, many of them with an "Excellent" rating as well.

Soviet builders have successfully coped with their multi-plan program. This could be ascertained by participants and foreign guests at the Seventh

Summer Spartakiad of the Peoples of the USSR, who rated highly the facilities that had already been put into operation.

During his visit to this country the IOC President Lord Killanin inspected many Olympic facilities and expressed his complete satisfaction with the progress of the preparations for the 1980 Olympics. At the 82nd session of the IOC which, as is known, unanimously confirmed the candidacy of Moscow as the site of the Olympics, it was again emphasized that the XXII Olympics will take place on a high level.

Subbotnik for Olympics

Moscow STROITEL'NAYA GAZETA in Russian 21 Mar 80 p 1

[Article: "Call-Signs of 'Red Saturday'"]

> [Text] At the Olympics construction sites preparations are under way for the All-Union Communist Subbotnik [Voluntary-Labor Saturday] devoted to the 110th Anniversary of the Birth of V. I. Lenin. On the largest sites special teams for organizing the subbotnik have been set up. Their tasks include the allocation of tasks and provision of supplies, tools, special clothing, and meals to workers dispatched by the enterprises and educational institutions of Moscow.

- Komsomol members from the rayons extending their patronage to Olympics facilities will work thousands of man-days and accomplish operations worth tens of thousands of rubles in honor of the communist subbotnik.

- On 12 and 19 April 70,000 persons will work on 30 Olympics structures --including the builders themselves as well as Komsomol shock detachments and workers from Moscow's enterprises.

- Seven thousand participants in the communist subbotnik will appear on the site of the indoor stadium and swimming pool on Prospekt Mira. Four thousand will come to the site of the hotel complex in Izmaylov. Five hundred volunteers from the Babushkinskiy, Dzerzhinskiy and Sokol'nicheskiy rayons will come to the Olympic TV-Radio Center. One hundred Komsomol members from the Kuntsevskiy Rayon will work on the velodrome in Krylatskoye.

- Since the construction of Olympic facilities either has been completed or is being completed, the participants in the subbotnik will clean and decorate the areas and plant greenery. Thousands of trees and bushes will have to be planted.

This tall hotel has become the focus of the build-up area. Like all other Olympic structures in the nation's capital, it is an organic part of the city's architectural face and is explicitly included in the master plan for the development of Moscow.

Dynamo General Sports Hall

Moscow STROITEL'NAYA GAZETA in Russian 21 Mar 80 p 1

[Article by I. Poletayeva: "A Dome on a Stylobate"]

[Text] The Olympics facilities which began to be inspected in the second half of March by the state commissions include the Dynamo General Sports Hall on Lavochkin Street--a faceted dome supported by a solid stylobate. The facade is adorned with decorative inserts of shaped aluminum.

As is known, the Olympics facilities, which include the Dynamo, were so designed as to be used after the Games not only for training and contests but also for staging various spectacles. Architects and designers from the Central Scientific Research Institute of the Experimental Design of Buildings and Structures for Entertainment and Sports solved this problem successfully.

The Dynamo building will be the site of handball matches during the Games. Five thousand fans will view the matches. To accommodate so many spectators within relatively limited space, the architects designed the amphitheater benches in a more sloping array than is usual: from any seat it is possible to see everything that is happening in the arena. An 80-meter span of the ceiling is covered with eight beams carrying lighting fixtures and suspended aluminum screens which adorn the room and absorb sound.

Following the Olympic Games, the hall can be used as a site for the simultaneous staging of 12 different types of sports. And if a curtain or a screen is dropped from the ceiling on one side, it will be possible to stage concerts and festivals or show films.

In addition to the main room, the building contains two exercise rooms which will be permanently used by sportsmen from the Dynamo Society.

Another remarkable thing about this building is its roof terrace promenade which can be reached from the foyer to breathe in fresh air and enjoy rooftop views of the new community.

The architect's felicitous idea was translated into reality by the crew of the First Construction and Installation Trust, who are responsible for quite a few unique structures ornamenting the nation's capital.

Minsk Preparing for Olympics

Moscow STROITEL'NAYA GAZETA in Russian 21 Mar 80 p 1

[Article by B. Minkov, Chief, Division for the Preparation of Olympic Facilities, Directorate Under the 1980 Olympics Organizing Committee in Minsk: "Minsk Awaits Guests"]

[Text] Minsk is getting ready to host the soccer tournament for the 1980 Olympic Games. Here the principal Olympic facility is the Dynamo Stadium. Owing to the need to close it for the conduct of the necessary operations, the reconstruction of the Traktor Stadium was completed as far back as in July of 1978.

The work to modernize the western part of the stands of the Dynamo Stadium was commenced in 1977, while the stadium was yet open, by the crew of Construction Trust No 1 of the Minskstroy Construction Combine and, following the transfer of games to the Traktor Stadium, the whole of the Dynamo Stadium began to be reconstructed. Since then four 48- and 60 m high illumination masts were erected, following their fabrication by the Molodechensk Lightweight Metal Structures Plant. 480 light projectors were installed on these masts.

In addition, five permanent and 18 temporary booths as well as press boxes with 128 seats were constructed. A second tier of stands has been built, thus augmenting the number of seats to 50,000. The grass cover of the soccer field was retained after leveling it somewhat. In the opinion of experts, the quality of the grass cover at the Dynamo Stadium in Minsk meets the most rigorous requirements.

As soon as the first warm day comes, experts from the Hungarian Elektroimpex Company will install a new electric scoreboard, and the crew of the Soyuzsportstroy All-Union Sports Facilities Construction Administration will install Sportan synthetic flooring in the track and field areas.

Foreign tourists will be accommodated at the new 12-story Planeta Hotel. The crew of the Construction Trust No 7 of the Minskstroy Combine are currently completing final work on and artistic decoration of the corridors and restaurants.

Most tourists coming by car from West Europe will travel via the Brest-Moscow Highway. For several years now crews of the Belorussian SSR Ministry of Road Construction and the USSR Ministry of Transport Construction have been working to modernize that highway. Nearly 200 km already have been opened for use. This is a modern motor highway which allows speeds reaching 150 km an hour. The work proceeds simultaneously from two directions--Brest and Minsk. By the time the Olympic Games begin the builders will have put into operation an additional 50 km of roadway, as well as gasoline and service stations. The work to build permanent and temporary parking spaces in the vicinity of the sports contests and the places of residence of officials, honored guests, and tourists is nearing its end.

In a word, Minsk will be ready to welcome the participants in the Games with the traditional Belorussian hospitality.

Leningrad Preparing for Olympics

Moscow STROITEL'NAYA GAZETA in Russian 21 Mar 80 p 1

[Article by V. Smirnov: "There Will Be a Holiday"]

[Text] In the morning of 20 July the "Red Arrow" Train will deliver the Olympic Torch to Leningrad.

On the day of the arrival of heralds of the Moscow Olympics in Leningrad, not long before the beginning of the soccer tournament, the relay-race of torch-runners will start from Isaakiyevskaya Square. The race will be divided into 15 stages. During each stage the runner carrying the torch will be accompanied by 22 athletes. And once the solemn ceremony in the city on the Neva is completed, the soccer tournament of one of the subgroups will begin. Here will also be the site of the quarterfinals of the Olympics. Eighty thousand fortunate spectators will watch the exciting ups and downs of soccer games from the stands of the renovated Stadium imeni S. M. Kirov.

The modernization of the stadium is ending; its structures can now hardly be recognized. In one of them the press center will occupy two floors.

In another building the first two floors contain locker facilities for the soccer players. These include Finnish baths, swimming pools, shower rooms, and premises for referees and team representatives. And above these stand two gym rooms for workouts.

The Stadium imeni V. I. Lenin also has changed. Powerful lighting fixtures have been erected: each of the four steel masts carries 144 light projectors. The lamps were manufactured to special order in Ternopol'. New sections of stands were built. Hotels for athletes were constructed, along with well-equipped locker room facilities, rooms under the stands, and a medical-recovery center.

Each day 30,000 tourists will come to Leningrad during the Olympic Games. Altogether, the city on the Neva is preparing to host 120,000 people. The renovation and refurbishing of hotels proceed full steam ahead. New hotels have been built. The comfortable hotels Pribaltiyskaya and Kareliya have been opened on the shore of the Finnish Gulf. The construction of the hotels Gavan' and Yenisey is nearing its end. In Ol'gin, near Leningrad, a major tourist complex including a motel and camping facilities for 870 tourists is being built.

All catering services in Leningrad are being readied to receive the guests. Sixty-seven restaurants, cafes, and canteens in the city will serve tourists.

Transportation plans have been readied. Special railroad coaches are being built for tourists wishing to travel to Pskov, Novgorod, and Petrozavodsk. An additional 17 trains on various routes will be introduced during the Olympics.

The shape of Leningrad as conceived by specialists from the RSFSR Arts Center will be beautiful. They envision Nevsky Prospekt as an exhibition street designed for pedestrians. And Moskovskiy Prospekt, through which most of the traffic will flow, is being decorated with large figures readily visible from car windows.

The city is preparing to welcome the guests. The city will be ready for the Olympics.

1386
CSO: 1821

BUILDING MATERIALS

USE OF ARBOLIT IN CONSTRUCTION SUMMARIZED

Moscow NA STROYKAKH ROSSII in Russian No 2, Feb 80 pp 32-35

[Article by B. Smirnov, manager of a division of VNIIDreva [All-Union Scientific-Research Institute of the Wood Processing Industry] and candidate of engineering sciences; S. Sviridov, laboratory manager; and A. Balushkin, chief of the SPKTB [Special Design, Design-Development and Industrial Office] of the VNPO [All-Union Production Association] Soyuznauchplitprom: "Development of the Production and Use of Arbolit"]

[Text]

- The integrated use of wood plus good local material.
- A combining of the positive properties of concrete and wood and minimal capital investment for establishing a base.
- A set of equipment has been developed and standards documentation for the output of arbolit has been approved.

The national economy is facing sharply the question of the rational, integrated use of the whole mass of felled timber. The lack of wood processing at logging activities leads to many thousands of cubic meters of waste being burned or dumped onto heaps. At the same time construction work on low buildings is not being provided with good local materials.

Development of the production of arbolit--a lightweight cement concrete based upon wood aggregate (GOST [State All-Union Standard] 19222-73)--is solving these problems. Its bulk density in a dry state is 700-750 kg per cubic meter, and its compression strength is 25-35 kg per square centimeter. It combines the positive features of both concrete and wood: it does not burn, does not bend, is not toxic and is sound-absorbent. One cubic meter of wood waste processed into arbolit frees at least 1.5 cubic meters of coniferous large-dimension saw log for construction work and saves 20 rubles in comparison with keramzit concrete.

Arbolit production in the country has now reached 200,000 cubic meters. Items made from it are manufactured in the form of blocks up to 3,600 mm long, 1,200 mm wide, and up to 300 mm thick, or panels up to 6 meters long--reinforced or nonreinforced--and are used for walls, roofs and ceiling floors. In buildings up to 10 meters high arbolit serves as load-bearing structure, and in multistory buildings it is used in the form of suspended panels.

Arbolit does not have a counterpart among board materials with respect to construction properties. Panels made from it are easily fastened by staples, it is cut by ordinary saws, it is chopped by axes, and it can be nailed. A wall 24 cm thick protects against -40 degree weather. It is especially important that arbolit regulates the heat and moisture regime in a premise; if it is moist--it drinks in the moisture, if it is dry--it gives off moisture. The thermal capacity of walls made of it enable an even heating regime to be maintained in a premise.

Many housing settlements and hundreds of livestock buildings and buildings of other types have now been built with arbolit, and experience indicates that cowbarns made of arbolit are more resistant than others to an aggressive medium; and there is no sultriness or drizzle in them, providing more favorable conditions for the upkeep of livestock.

Arbolit's virtues also include the potential to establish at minimal capital cost construction-industry bases for the erection of low housing and for agricultural and industrial construction; a rise in the permanency of buildings and better adaptability thereof to prefabrication by replacing inflammable wooden structure; and simplicity of the technology and organization of production, with a minimal amount of harmful discharges into the environment.

The industrial process of producing arbolit includes the following operations:

the grinding of lumpy waste and low-quality wood into grounds (aggregate); the steeping of the grounds in water and later processing thereof with chemical-additive (aluminum sulfate, liquid glass and calcium chloride) solutions; mixing of the grounds with portland cement; laying of the mix obtained into molds and the compaction thereof; and a one-time application of surface-finish made of cement and sand solution and carpeting made of glass tile or other types of finish.

It is much simpler to produce these grounds and other types of organic aggregate than mineral aggregates for lightweight concretes, and no expensive equipment or quarrying operations are required.

Certain types of wood waste, such as wood-lathe shavings, sawdust and wood-chip siftings also can be used in arbolit, with slight preparation. There is positive experience in the use of stubble from agricultural crops: hemp, cotton, rice and other crops.

A cubic meter of arbolit manufactured in accordance with GOST 19222-73 requires an average of:

wood grounds (in the dry state)--220-240 kg
portland cement (M-400 to M-500): 330-360 kg
chemical additive--less than 30 kg
water--270-400 liters.

In order to prepare the wood grounds and to obtain the arbolit mix, mainly serially produced equipment is used: belt transporters, chopping machines, hammer breakers, pneumatic transporter installations, concrete and mortar mixes, and batchers, while nonstandard equipment is used for molding, transporting, striking, heat treatment and decoration.

The institute has now developed and fabricated at a test plant a set of equipment with a productivity of 12,000 cubic meters of arbolit products per year. It weighs about 160 tons, the rated capacity of its electric motors is 280 kw, its approximate cost is 200,000 rubles, and operating costs per cubic meter of output is in the 25-35 ruble range. A set of equipment with a productivity of 24,000 cubic meters is being created.

Arbolit production is being developed mainly in the forest industry. USSR Minlesprom [Ministry of Timber and Wood Processing Industry] is operating 10 arbolit departments in plants and 2 are in the assimilation stage. Their total designed productivity is about 140,000 cubic meters of articles, or 280,000 square meters of total area, per year, which is far from adequate for the growing needs of the timber industry. The Oktyabr'skiy DSK [housing-construction combine] of Lesstroydetal' [Lumber Industry Trust for the Manufacture of Construction Parts], the Vakhtan Lespromkhoz [timber industry activity], the Chelutayevskiy DSZ [housing-construction plant], and the Vasil'yevskiy Timber Combine (they are making low housing for rural localities) have been specialized in housing construction, while the other enterprises are producing large arbolit blocks for various purposes. The operating cost per cubic meter of product, depending upon production volume and type of finish and reinforcement, ranges from 26 to 55 rubles, while the wholesale factory price is 34 to 51 rubles.

Experience has proved the economy of arbolit production and the good living conditions provided in housing made of it when it is highly adaptable to construction with prefabricated parts or modules. The Soyuzlesstroy [All-Union Association for the Construction of Logging and Log-Rafting Enterprises] and the Lenles, Gor'kles, Zabaykalles and Krasnoyarsklesprom associations have gained positive experience in producing arbolit and in building settlements from it.

The time for doubts about arbolit has passed: where this material is being manufactured it finds universal acceptance by the builders, and it is used widely in erecting low housing and facilities for industrial and agricultural purposes--in Arkhangel'skaya, Gor'kovskaya and Leningrad oblasts, Krasnodarskiy Kray, the Buryat ASSR and other parts of the country.

The production of arbolit articles on the first serially produced sets of equipment with a productivity of 10,000-12,000 cubic meters (the arbolit department of the Oyat' Log-Rafting Bureau in Domozhirovo settlement in

Leningrad Oblast) and with a productivity of 20,000 cubic meters per year (Oktyabr'skiy Housing Construction Combine at Oktyabr'skiy settlement in Arkhangel'skaya Oblast) was well arranged. Microrayons and tracts of standard housing in apartments in the Domozhirovo and Oktyabr'skiy settlements were erected from the articles produced. The indicated housing tract and experimental apartment houses with walls and ceiling floors made of arbolit in the latter merit special attention.

An All-Union seminar on increasing the output and raising the quality of arbolit articles was held, based on the Oyat' bureau and the Oktyabr'skiy DSK. In recent years some most important decisions have been adopted to intensify work in the arbolit field and to increase housing construction plants on the basis of existing plant departments. In acting in this area VNIIDrev and the SPKTB of VNPO Soyuznauchplitprom, Soyuzlesstroy and Giprolesprom [State Institute for the Design of Timber and Wood-Processing Industry Enterprises], jointly with the specialized USSR Gosstroy institutes of NIIZhB [Scientific-Research Institute for Concrete and Reinforced Concrete], NIISF [Scientific-Research Institute for Construction Physics], TsNIISK [Central Scientific-Research Institute for Constructional Structure imeni V. A. Kucherenko] and TsNIIPromzdaniy [Central Scientific-Research and Experimental Design Institute for Industrial Buildings and Structures] and other organizations, did a substantial amount of research and design development, as a result of which the following were created and introduced:

conveyor technology for power vibration rolling, based upon the PD-3 molding line, with a designed productivity of 24,000 cubic meters per year (at the Oktyabr'skiy, Pechora and Suoyarvskiy DSK's and at the plant at Yasino settlement in Tomskaya Oblast);

experimental operational lines for power vibration rolling with LV-117 and LV-64 vibration molding units, with a productivity of 24,000 cubic meters per year (in the Khandagaty Lespromkhoz of the Zabaykalles Association and in the city of Kurganinsk of Krasnodarskiy Kray);

a set of industrial equipment with an LV-24 molding line, with a productivity of 12,000 cubic meters per year (in the Oyat' Log-Rafting Bureau and the Vakhtan Lespromkhoz of the Gor'kles Association and in plant departments of the Peskovskles and Udmurtles associations);

an experimental industrial process for the preparation and treatment of wood aggregate with various chemical additives, taking into account use of the wastes of broad-leaf species and larch; an experimental installation for wetting the wood aggregate; an automatic gripper for removing arbolit articles up to 3.6 meters long with a tray of molds and laying the article on a stack (the Oyat' Log-Rafting Bureau); and

roller conveyors for the transporting of molds with articles and of finished articles up to 6 meters long; an experimental set of metal molds for arbolit articles with maximum dimensions of 6,000x1,200x300 mm; an industrial process for the surface-finishing of arbolit articles with a cement-and-sand solution and facing tiles; and structure made of 3-layer arbolit slabs for ceiling-floor slabs, with maximum dimensions of 3,600x-1,200x200 mm for apartment houses (the Oktyabr'skiy DSK).

Moreover, other experimental equipment has been developed, assembled and subjected to testing: the LV-125 molding line for manufacturing articles up to 6 meters long in horizontal molds with securing covers, an experimental arbolit mixer unit, and an installation for obtaining articles from arbolit by the cutting method.

The first housing-construction combines have been established, and the delivery of standard housing made of arbolit blocks fully readied at the plant and with a high level of outfitting has been organized. As a result of the joint efforts of VNIIDrev, Giprolesprom, NIIZhB and Lesstroydetal', a design has been developed and the experimental manufacture of arbolit ceiling-floor slabs for housing has been organized, and a 3-story 9-unit apartment house made of arbolit structure has been built in Oktyabr'skiy settlement. At the Chelutayevskiy Housing-Construction Plant the production of arbolit by means of an aggregate of grounds made of larch has been organized, and experimental arbolit structure, out of which apartment houses have been built in regions of seismicity of 5-7 points, has been fabricated at the same place. VNIIDrev and Lesstroydetal' have for the first time developed drawings and have fabricated experimental models of large-format room-size panels.

VNIIDrev, Giprolesprom, NIIZhB, MLTI [Moscow Lumber Engineering Institute] and TsNIIEPsel'stroy [Central Scientific-Research Institute for the Experimental Design of Rural Construction] have developed and approved the following technical and standardizing documentation for the production of arbolit:

plans for plants and plant departments with a productivity of 12,000 and 24,000 cubic meters of structure per year; standard designs for series-115 housing and buildings for social, cultural and personal-services purposes with walls made of arbolit; experimental designs for 2-story and 3-story apartment houses with walls and ceiling floors made of arbolit; GOST 19222-73, "Arbolit and Articles Made of It"; guidance for the design and manufacture of articles made of arbolit; TU's [specifications] for organic aggregate made of wood waste; and an illustrated catalog of arbolit wall panels up to 6 meters long for production buildings (code No 293-75).

Thus, the prerequisites for the organization of wide production of arbolit and the use thereof in industrial, public-building and agricultural construction have now been basically established. The scientific and technical backlog that has been achieved and the practical experience that has been gained allow tasks to be set for the further creation of specialized housing-construction combines that will produce fully outfitted housing made of arbolit, for the development of new technology and equipment for producing room-size articles, and for the design and construction of arbolit buildings up to three stories high for building up settlements in an integrated fashion.

At the same time, a number of serious deficiencies is slowing the development of this new branch of industry. The construction of new plants is being hindered by the lack of specific capital investment and centralized serial production and delivery of sets of equipment. It is now being manufactured by nonspecialized enterprises.

Arbolit is being produced at timber-industry enterprises basically by two methods: by power vibration rolling and by vibration pressing. For each of them, questions of the placement and molding of the arbolit mix, heat treatment, surface-finishing, decorating and manufacture of large-format articles still have not been resolved.

Although the spectrum of use of arbolit in structure for buildings is extremely broad (wall block and panels, roofing and ceiling-floor slabs, thermoinsulated sheet for floors, and others), its production and use nevertheless still have not been regularized, and it has not been systematized as to products mix, purpose and large-scale use in construction.

The products mix that is now being produced and the standard designs for series-115 buildings with structure made of arbolit that Giprolesprom has created are extremely limited and require further development for wider and a more industrialized type of use in construction, especially in seismic regions.

Arbolit articles are being manufactured by the timber industry mainly in the form of large wall blocks with maximum sizes of 3.6x1.2x0.3 meters at a time when, in the long term, large-format articles of 6x1.2x0.25 and 6x2.8x0.25 meters, as well as final-assembly members of smaller sizes, will be required for large-panel housing and production buildings.

The main research in the arbolit field for 1980 calls for the development and improvement of technology for manufacturing articles made of the wood waste of aspen, birch and larch; the improvement of equipment for the manufacture of arbolit mix, the manufacture of large-format room-size panels, and the acquisition of articles by the cutting method; and the development and introduction of new and effective arbolit structure for apartment houses and production buildings.

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